DOCUMENT RESUME

ED 365 028 EC 302 653

AUTHOR	Fitzgerald, Martha
TITLE	School Building Models for Educating Students with Disabilities in the Regular Education Environment. Final Report.
INSTITUTION	Vermont Univ., Burlington. Coll. of Education & Social Services.
SPONS AGENCY	Special Education Programs (ED/OSERS), Washington, DC.
PUB DATE	4 Dec 92
CONTRACT	H023F80027
NOTE	246p.; Appendixes B and C separately analyzed: see EC 302 654-655.
PUB TYPE	Reports - Descriptive (141)
EDRS PRICE	MF01/PC10 Plus Postage.
DESCRIPTORS	Case Studies; Consultation Programs; Cooperation; Cooperative Programs; *Disabilities; Educational Change; Educational Planning; *Educational Practices; Elementary Secondary Education; *Mainstreaming; Models; Participative Decision Making; Problem Solving; Professional Development; *Regular and Special Education Relationship; *Teamwork
IDENTIFIERS	*Teacher Collaboration

ABSTRACT

This final report of the School Building Models for Educating Children with Disabilities in the Regular Education Environment project provides a conceptual framework and describes the problem solving-planning process which links school-wide collaboration, individual professional development, and inclusionary practices with shared responsibility for all students. The report discusses the research approach of the project including the five principal project phases (pre-intervention, intervention, technical assistance, data collection, and data analysis). It presents three case studies which describe the problem solving-planning process in action and the effects that the process had on inclusionary practices in the four participating schools, two elementary and two secondary. The report concludes with project findings and related recommendations for encouraging inclusionary practices in the regular classroom. The principal findings of the project include: the problem solving-planning process was effective in creating change in the schools; the process was adaptable to a variety of elementary and secondary settings; teachers increased their voice in determining how all students would learn in their schools; and teachers increased their peer leadership and teaming skills and sharing of professional expertise. The report emphasizes that the process of change takes time. Appendixes contain survey forms, a conference paper by Pamela J. Kay and others titled "Involving Special Educators in School Reform: The Development of Peer Leadership," and a conference paper by Amy V. Mellencamp titled "Making Connections through Voice: Teacher Receptivity to Change." (Contains approximately 85 references.) (JDD)

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FINAL REPORT:

SCHOOL BUILDING MODELS FOR EDUCATING STUDENTS WITH DISABILITIES IN THE REGULAR EDUCATION ENVIRONMENT

Grant No. H023F80027
U.S. Department of Education
Office of Special Education

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December 4, 1992

EC 307653

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> The focus in inclusive schools is on how to build a system that includes and is structured to meet everyone's needs....Integration or mainstreaming implies a need to fit students previously excluded into an existing mainstream. In inclusive schooling, the responsibility is placed on school personnel to arrange a mainstream that accomodates the needs of all children (Stainback, Stainback & Jackson, 1992, pp. 3-4).

INTRODUCTION

The final report of the School Building Models for Educating Children with Disabilities in the Regular Education Environment, University of Vermont, consists of two parts.

The first part is a videotaped conversation with three special educators in the participating Franklin Northeast Supervisory District. They discuss the effects of the project and issues concerning the full inclusion of children with disabilities in the regular education classroom. A student demonstration of one strategy adopted by a project school, social skills training for all students, is also presented, followed by student and teacher comments regarding the strategy.

The second part is the following written report. The report first provides a conceptual framework for the project, describing the problem-solving-planning process which links school-wide collaboration, individual professional development, and inclusionary practices with shared responsibility for all students. Next, the report discusses the research approach of the project, including the five principal project phases (pre-intervention, intervention, technical assistance, data collection

and data analysis) and the measures and data collection procedures used. It then presents three case studies which describe the problem-solving-planning process in action and the effects the process had on inclusionary practices in the four participating schools, two elementary and two secondary. The report concludes with the general findings of the project and related recommendations for encouraging inclusionary practices in the regular classroom.

The principal findings of the project include: the problem-solving-planning process was effective in creating change in the schools; the process was adaptable to a variety of settings including elementary and secondary; teachers increased their voice in determining how all students would learn in their schools; few significant changes resulted in student and parent opinions; teachers increased their peer leadership and teaming skills and sharing of professional expertise; the variety of inclusionary practices increased in the schools, yet insufficient time had elapsed for these practices to significantly affect student performance.

These findings suggest that a school building model can make a difference in the adoption of inclusionary practices in a school, but that the process of change takes time. Special education and general education professionals, however, can become effective partners in changing how schools meet the needs of all learners.

CONCEPTUAL FRAMEWORK

The American public school is increasingly seen as a place where adults and children engage in a continual process of learning and change. The "restructuring" school is a team enterprise, operated democratically with authority and responsibility shared by all the professional staff. Staff interact with colleagues throughout the school, trading assignments and working with multiple groups. Recognition for teacher performance is a professional issue controlled by the staff, instead of by one individual separate from the staff. And, most importantly, the school goals and the programs that reflect those goals are developed by the professional staff, in negotiation with the local governing body (Clark & Meloy, 1990).

In the restructuring school, teachers are enlisted and empowered as school leaders. Leadership is less a matter of according a few individuals with responsibility and more a transaction in giving all staff members responsibility for the continual growth of all children and adults in their school (Barth, 1988). The restructuring school reflects a culture in which change is part of the normal course of events. While traditional bureaucratic school structures are predicated on maintaining the status quo, the restructuring school responds to the changing needs of children and teachers. Skrtic (1991, p. 208) characterizes the restructuring school as an adhocracy which "turns on human agency, on the values, commitments, expectations,

and actions of the people who work in them." In this new adhocratic culture, people matter most.

The importance of school professionals acting as agents of change in schools emerged as a critical finding of the original Rand Change Agent Study (Rand Corporation, 1978). Those change efforts that excluded teachers from the planning for change and assigned teachers to mechanistic roles were ineffective. Those efforts that promoted teacher participation and broad-based teacher commitment were effective. When McLaughlin (1990) revisited the The Rand Change Agent Study, she underscored "the essential contributions of teachers' perspectives as informants and guides" to the change process. Her review sheds further light on the role of the teacher by placing less emphasis on the importance of teachers' initial motivations for participating in change efforts and more focus on the concept that change in teachers' beliefs can follow practice.

Other studies suggest that teachers are not willing to adopt practices without reflection and justification on their own terms, a process that allows staff members to interact and have conversations around standards, theory, classroom activities, and alternative conceptions of a proposed change (Richardson, 1990; Fullan, 1991). Significant and worthwhile change is likely to be affected only when personal factors such as the teacher's experience and the teacher herself are considered to be as important as organizational variables (Mellencamp, 1992; Belenkey, Clinchy, Goldberger, & Tarule, 1986).

The classroom teacher has also been an important element in special education reform. Successive conceptions of consulting models have transferred responsibility for the learning of a child with special needs from the "resource room teacher" to the "classroom teacher", from a "triadic" model to a "collaborative" model (McKenzie, Egner, Knight [Fitzgerald], Perelman, Schneider & Garvin, 1970; Friend & Cook, 1992). This move toward a more collaborative, interactive approach to special education has coincided with a focus on the building as the center of activity or the "organizational hub." Policy directives, federal priorities, and trends reinforce the school as the unit of analysis for change. As part of the adaptation process, a school develops its own complex variation of one or more of several prototype models, such as Professional Development Schools, Essential Schools, New American Schools, and Effective Schools.

This project was an attempt to understand the change process from the perspective of individual teachers in a school as well as from the school organization. The model for change used in the study engages all teachers in a year-long interactive process of inquiry and planning focused on how the school can better meet the needs of diverse students. It incorporates a developmental perspective that appreciates the needs of individual teachers as growing professionals (Glickman, 1990; Goodlad, 1984). It leads to specific steps, decided and implemented by teachers, for restructuring how learning happens in a school.

The Model for Change

Educational transformation is a journey, not an event; a marathon, not a sprint. These metaphors are often used by Vermont Commissioner of Education, Richard Mills, to describe the Green Mountain Challenge: Very High Skills for Every Child; No Exceptions, No Excuses, which was adopted by the Vermont State Board of Education in January, 1990. The goals of this state framework for restructuring Vermont schools are:

Goal 1: Vermonters will see to it that every child becomes a competent, caring, productive, and responsible individual and citizen who is committed to continued learning throughout life.

Goal 2: Vermonters will restructure their schools to support very high performance for all students.

Goal 3: Vermont will attract, support, and develop the most effective teachers and school leaders in the nation.

Goal 4: Vermont parents, educators, students, and other citizens will create powerful partnerships to support teaching and learning in every community.

The goals are an invitation to Vermont citizens, schools and communities to transform education, each charting an individual course but moving toward the same end point. This inclusiveness of participation and local ownership of the restructuring process distinguishes the Green Mountain Challenge from most other reform agendas (e.g. America 2000). The difference lies in its

attention to every child as a beneficiary and every community as an agent of change. It reflects the Vermont Philosophy of Education, adopted by the State Board of Education on May 18, 1987. One of the eleven principles of this philosophy speaks to the centrality of full inclusion in general education.

> Students with unique learning needs must be served in the least restrictive environment appropriate to meet those needs. This most often calls for accommodations to be made in regular classrooms with non-disabled peers through the use of support services to teachers in these classrooms.

Evidence of Vermont's commitment to inclusiveness was the passage of Act 230, a legislative requirement that every school build a comprehensive system of education that results in success for all students learning together in the same classrooms (Vermont Statutes, 1990). The intent of the law was to build a general education infrastructure capable of meeting the needs of all students, and to allow access to categorical funds within these new structures. Common elements of the new structures include staff development for teachers and administrators: technical assistance and consultation: instructional support teams (or teacher assistance teams) led by classroom teachers: a range of special education services including essential early education; and strict compliance to special education eligibility standards.

The Green Mountain Challenge and Act 230 emerged as guidelines and context for school reform during the four-year

period in which four schools in rural Franklin Northeast School District collaborated with the University of Vermont, Department of Special Education, in a project designed to encourage the full inclusion of children in general classroom settings. The goal of the project was to develop, implement and evaluate a school building model for bringing together general and special education professionals to engage in problem solving and strategy development for educating students with and without disabilities. The model would lead to the creation of an effective learning environment for all students, fitting the needs and experiences of both teachers and students in a particular school. This project goal effectively mirrors the intent of Act 230: to strengthen every school's ability to meet the needs of all students within its general education systems.

The development of the school building model, or the "problem-solving-planning process," was based on the findings of three bodies of research: school-wide change, individual professional development, and inclusionary practices. The conclusions of this research, which are described more fully below, are as follows:

1) Planning for school change requires school-wide collaboration in which all school professionals at a given site come together as a group to work together toward a set of shared goals (Tikunoff & Ward, 1980; Fullan, 1991; Friend & Cook, 1992; Louckes-Horsley & Hergert, 1985; Barth, 1988);

2) Implementing school change requires ongoing attention and responsiveness to the individual professional development needs of the school practitioners responsible for school change (Glickman, 1990; Levine, 1989; Belenkey, et al, 1986).

3) Educational success for students with disabilities in general education classrooms requires the use of inclusionary practices which research has shown to be effective, including strategies for assisting teachers (Chalfant, 1984; McKenzie, et al, 1970; Joyce & Showers, 1980), and strategies for assisting students (Rosenshime & Berliner, 1978; Johnson & Johnson, 1986; Slavin, 1987; Gleason, 1988; Deschler & Shumaker,1986).

As Figure 1 describes, the problem-solving-planning process creates relationships among these three bodies of research and leads to shared responsibility for all students by all staff members. It establishes an environment in which school-wide change is the norm, individual professional development is the maxim, and inclusionary practices are the rule.

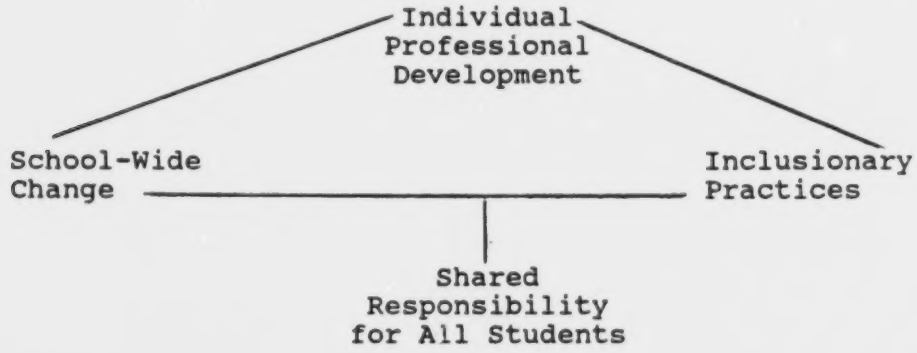

Figure 1. A School Building Model for improving the delivery of special education services in general education settings.

School-Wide Change

The problem-solving-planning process involves all members of a school staff in defining how a school should change and what strategies should be implemented to achieve that change. The school development principles guiding this collaboration include:

1. The needs of students vary from school to school, and strategies must be designed to meet the needs of the students in a given school.
2. The needs of school professionals also vary from school to school, and strategies must be tailored to the needs of the professionals who will use the strategies.
3. The school professionals who use the strategies must be intimately involved in the development of the strategies in order to be maximally effective.

The problem-solving-planning process was adapted from a process used successfully in two Vermont school districts, one urban and one rural, to develop strategies for drug and alcohol education. Derived from the research on focus groups, one of the most frequently used techniques in marketing research (Churchill, 1983), the process uses the "problem expert" concept which recognizes and draws from expertise within the group. Each professional participating in the problem-solving and planning process is considered to be a "problem expert." As group members, each has the opportunity to strengthen that expertise through required and supplementary reading related to problem areas identified by the group.

Focus groups are typically comprised of ten to fifteen experts in the area of focus who come together as a group for one to two hours to answer questions and comment on a problem area. Focus group members are recognized for their experience, expertise, and divergent thinking related to the problem area. A moderator is responsible for guiding and questioning. Notes are taken throughout the session and the session is audiotaped so that ideas will not be lost.

In the problem-solving-planning model, participants come to the focus group with a knowledge base related to inclusionary practices. Participants use this knowledge base to clarify their individual and group values and to make informed decisions regarding the selection and synthesis of strategies. The strategies thus selected for the whole school are those best

suited to meet both the needs of their students and the needs of the school professionals who will implement them.

The values and foundation knowledge inherent in the group are reinforced by the problem-solving-planning process, which culminates in a convergence around a philosophy and goals for meeting the needs of all students. A prototype is the "complete school," a learning environment geared to the individual needs and experiences of all students (Biklen & Blatt, 1985). In this conception of school development, an inclusive school philosophy and goals is the guiding force in creating strategies for school-wide change.

The problem-solving-planning process which is integral to school-wide change consists of five steps (see Table 1). In this study, the five steps are spread over the period of a year in order to allow for the time needed for teachers to build trust in each other, the facilitators, and the process itself. In the first step, occurring over several sessions and incorporating a variety of trust-building activities, group roles are clarified and a facilitator helps the group define problems related to their school.

In Step 2, again occurring over several sessions, the problems are analyzed by expert practioners (or guest teachers from other schools) who have proficiency regarding the problem defined by the group. The problem is analyzed in terms of its history including its longevity, its effects and results. Group

TABLE 1
THE PROBLEM-SOLVING-PLANNING PROCESS

STEP 1 DEFINE PROBLEMS	STEP 2 ANALYZE PROBLEMS	STEP 3 BRAINSTORM POTENTIAL SOLUTIONS	STEP 4 SELECT ONE SOLUTION	STEP 5 DEVELOP STRATEGIES
Facilitator builds trust among group members. Facilitator clarifies roles of facilitator, expert practitioners, and problem-solving members. Facilitator helps group members identify a common problem.	Expert practitioners share their knowledge and experiences regarding the identified problem. Expert practitioners analyze problem in terms of its effects, results and history. Expert practitioners suggest alternatives for addressing the problem.	Group members brainstorm potential solutions to the problem. Group members identify facilitating and inhibiting conditions affecting potential solutions. Group members consider which solution can be realistically achieved.	Group members select one solution. Group members define specific opportunities and barriers affecting the solution for planning purposes. Group members identify specific components to the solution.	Group members identify activities related to the components. Group members develop an Action Plan, describing these activities, a timeline, persons responsible, needed resources, and evaluation measures. Group members establish regular meetings to reflect on Action Plan progress.
Problem Defined	Problem Analysis	Solutions Brainstormed	Solution Selected	Plan Developed

members clarify the problem through questioning the experts to obtain more information and graphic examples.

In Step 3 the group members brainstorm potential solutions to the problem and elicit divergent views of the problem. Internal and external conditions affecting these solutions are identified and weighed. Several solutions are selected from among those presented, based on their potential impact on the problem. In Step 4 the group, using a consensual form of group decision-making, selects one solution that group members agree to commit their time and energies to realizing.

In the fifth and final step, the group plans for implementing the solution. They identify specific actions, a timeline, persons responsible, resources needed, and evaluation activities. This "action plan" is the primary outcome of the problem-solving-planning process.

The roles of the facilitator, the expert practitioners, and the group members are critical to the problem-solving-planning process. These roles are described below.

Facilitator:

1. is kind but firm, encouraging group participants to feel at ease while insisting that the problem-solving-planning process is followed;
2. encourages the emergence of leadership within the group while avoiding domination by a single member;
3. creates a climate of openness to new ideas and exploration;

4. facilitates participation of all group members in the process;
5. clarifies group member's role in each step of the process;
6. allows the expert practitioner's input at appropriate times; and
7. is neutral in judgement and advice.

Expert Practitioners:

1. have expert knowledge in the problem area;
2. present an analysis of the problem area from her or his experience;
3. maintain an attitude that everyone is working to help solve the problem;
4. do not label ideas (i.e. old, done before) which would discourage participation;
5. voice realistic concerns without killing an idea; and
6. take the position of a resource who is available to offer assistance.

Group Members:

1. are responsible for the problem;
2. focus on strategy development;
3. are cooperative rather than competitive; and
4. are able to listen "hard" for a gem of an idea that could be developed to help solve the problem.

Similar processes for school-wide collaboration through group problem-solving and planning are described by Friend and

Cook in their book Interactions: Collaboration Skills for School Professionals (1992), and Loucks-Horsley and Hergert in their Action Guide to School Improvement (1985). The common elements of each of these processes are identifying problem areas, listening to experts, generating potential solutions, setting goals, and developing strategies. The outcome of school-wide collaboration is the articulation of a school philosophy and plan for meeting the needs of all students.

Individual Professional Development

Research on teaching, for the most part, uses positivist-oriented, process-product and cognition approaches to study (Gage 1989; Gage & Needels, 1989). More recently, there has been an acceptance of ethnographic approaches such as content analysis of classroom interaction, case studies focusing on texture and context, and qualitative examinations of the ways in which teachers understand and guide their own practice (Larabee, 1992). This trend reflects the view that classrooms are complex, dynamic environments that vary across settings, and teachers are human individuals whose personal relationships and personal status affect how they teach (Berliner, 1987). These realities make each teaching situation unique, thus limiting the general ability of teaching strategies across settings and supporting the need to include learnings from practice in an inquiry on teaching.

Teaching as a profession has been under national scrutiny of late, with renewed consideration of teacher preparation, licensure criteria, and professional standards (Holmes Group,

1990; Carnegie Forum, 1986). But what truly defines teaching is the everyday practice of teaching and the thoughtful reflection on practice by the teachers themselves. It is through "the professional's own understanding of self and the nature of the practical" that individual professional development takes place (Clark & Yinger, 1987). Individual professional development can bridge the gap between a school's plan for developing an inclusive school and putting that plan into practice. Relevant research on individual professional development includes studies of teacher leadership (Lieberman, Saxl & Miles, 1988), teacher observation (Stallings, Needels, & Sparks, 1987), teacher socialization (Pugach, 1992), and adult development (Belenky, et al, 1986; Noddings, 1984).

Teacher Leadership. Teacher leadership in an inclusive school relates to the freedom and ability of teachers to make choices and support the choices of others in addressing the day-to-day instructional needs of students (West & Idol, 1990; Little, 1982; Rosenholtz, 1989). Researchers posit that professionalizing teaching and restructuring the work environment require opportunities for teachers to participate in the instructional leadership of schools. Little (1986) finds that a critical role of the principal is creating opportunities for teachers to replace daily routines of isolation with collegial interactions characterized by working together and critiquing one another's work. Saxl, Miles & Lieberman (1990) have studied the kinds of skills, abilities and approaches that teacher leaders

use in supporting the teaching and professional development of other teachers. They identified 18 different skills falling into six clusters: building trust and rapport, organizational diagnosis, dealing with the process, using resources, managing the work, and building skill and confidence in others.

Teacher Observation. Another line of research related to individual professional development considers the ability of teachers to step back and observe their own classrooms and the classrooms of their colleagues. Observation instruments can be used to provide specific information about the details of classroom instruction for improving teaching (Stallings, Needels, & Sparks, 1987). The information gleaned from teacher observations of other classrooms provides a focus for conversation about what is happening in the classroom and how it might be different, just as conversations about observations of a student are used to inform instruction.

Peer observation of student-student and teacher-student interaction patterns have been demonstrated as effective in developing teacher awareness of classroom processes and promoting teacher self development. Peer observation has been found more effective than peer coaching in helping teachers improve their teaching (Mohlman, 1982). Subsequent studies confirmed these initial findings and found that the attitudes of teachers who took part in peer observation were consistently positive (Stallings, 1985).

Teacher Socialization. The study of teacher socialization refers to how teachers take their place in the profession of teaching and in the culture of school. The socialization process builds on prior personal and pre-professional experience and extends throughout the teacher's career. In general terms, socialization is the process of fitting individuals into society (Lacey, 1977).

Pugach (1992), in her review of the research on the teacher socialization, identifies the unique case of socialization for special educators. This uniqueness is reinforced by separate policies for special education instruction and a separate knowledge base for general education instruction in subject areas. This separateness has created two distinct school cultures, special education and general education, that influence the socialization and professional development of the teachers in those cultures. As a school moves toward more inclusive practices, there are issues of who makes up the dominant influential peer group and how teachers handle the dilemma of two school cultures that may be in conflict. Each of these situations has implications for the kinds of professional development opportunities offered to individual teachers (Pugach, 1992).

The Adult Development Perspective. Another critical research area in professional development is adult development theory. This area suggests an expanded view of professional development that recognizes the need for each individual to be

heard and their "voice" acknowledged in a developmentally supportive manner. The support each person is given should be consistent with the characteristics of his or her own developmental path and experiences (Levine, 1989; Glickman, 1990). It should also "confirm the self as knower." As Belenky, et al (1986) found in their study of adult women, what individuals need most is confirmation that they can be trusted to know and to learn. They can "do anything" with confirmation and "can't function" without it. Thus, it is through this process of confirmation by others that teachers also develop and become more effective in supporting one another's growth.

Inclusionary Practices

A variety of strategies has been developed and assessed for providing effective education to all students within general education settings. For the most part, these strategies have been created, implemented, and evaluated separately, seldom in concert with each other and rarely with knowledge and training provided to the general education teacher. This study sought to help special and general education teachers, through the problem-solving-planning process, select and integrate inclusionary strategies that would benefit all students in the regular education classroom. The strategies included those for assisting teachers and those for assisting students.

Strategies for Assisting Teachers. To be effective, strategies for assisting teachers must reflect the particular needs and capabilities of involved teachers. Glickman (1990)

urges educators to approach these strategies from a developmental perspective, in order to "screen techniques, skills, procedures, and tasks according to their potential for enabling teachers to move to greater levels of reflection, choice and collective action (p. 382)." A developmental approach to teacher assistance strategies emphasizes teacher development and growth, responding to the needs of individual teachers through flexibility and diversity.

Teachers can employ **prereferral models** in which they enlist support in problem-solving and intervention before formally identifying and placing a student in special education. The goals of prereferral systems are a) to identify interventions which help students remain in general education, and b) to use data on effectiveness of interventions as part of the decision-making process, thus promoting data-based and instructionally relevant decision-making (Graden, Casey, & Christensen, 1985).

One type of prereferral system is the Teacher Assistance Team (TAT) model or Vermont's Instructional Support Team model. In the TAT model, classroom teachers bring concerns about students to a team which functions as an intermediate step between recognition of a problem and formal referral for a comprehensive evaluation (Chalfant, 1984). Those on the team, comprising a variety of educational backgrounds, teaching experience, and diagnostic expertise, provide a forum in which the needs of students are discussed and specific, immediate interventions are recommended. Assessment of the effect of the

intervention can be used to decide whether to refer students for comprehensive evaluation. For example, the instructional environment itself can be a primary cause of individual learning problems (Ysseldyke & Christenson, 1987).

A number of studies have supported the need for prereferral systems. Algozzine, Christensen & Ysseldyke (1982), for instance, found that once referred, students had a high probability of being tested (92 percent nationally), and subsequently placed in special education (73 percent nationally). Other researchers have found that once a student is referred for special education, the "search for pathology" begins (Sarason & Doris, 1979). Prereferral models can reduce the number of inappropriate referrals. Moreover, they provide an efficient and effective means of assisting classroom teachers, giving moral and peer support to teachers, providing a vehicle for faculty to share expertise, and disseminating learning that teachers can incorporate into their repertoire for dealing with similar problems in the future.

Teacher consultation models involve collaborative problem-solving between classroom and special education teachers as a means to support students with disabilities in general education settings (West & Cannon, 1988; West & Idol, 1987). They focus on building parity between special educators and classroom teachers so that there is shared ownership of learning and management problems resulting from students with disabilities participating in regular classroom instruction (West & Idol, 1987). They

include five main components: gaining mutual acceptance on the part of teacher consultants and consultees; assessing problems; formulating goals and objectives; implementing teaching and learning procedures; and evaluating outcomes (Idol, Paolucci-Whitcomb & Nevin, 1986).

Huefner (1988) identifies several advantages of teacher consultation: it reduces the stigma students experience when pulled out of classrooms; improves understanding, appreciation and communication between special and regular educators; and provides classroom teachers with on-the-job training in special education skills, improving their confidence in teaching and managing students with disabilities. Moreover, classroom teachers can use the special education technology to individualize the education of all students and "probably prevent some idiosyncratic learners from experiencing the kind of underachievement that would result in their eligibility for a learning disability label (p. 406)."

Other research demonstrates that teacher consultation results in positive changes in teacher behavior including improved academic and behavioral teaching (Conoley, 1986; Medway & Updyke, 1985; Sibley, 1986) and in attitudes toward and use of consultation (Chandy, 1974; Gutkin, 1980; Idol-Maestas & Jackson, 1983). Students benefit from teacher consultation, as evidenced by their improved academic achievement and decreased inappropriate behaviors (Ajchenbawom & Reynolds, 1981; Jason & Ferone, 1978; Knight [Fitzgerald], Meyers, Paolucci-Whitcomb,

Hasazi & Nevin, 1981). Teacher consultation can also result in improvements in the overall school climate and reduction in the number of referrals to special education (Ritter, 1978).

Staff development strategies, ranging from the most informal, teacher consultation, to the more formal, workshops and courses (Knight [Fitzgerald], Willard, Stahlbrand, Moore & Oaks, 1981), can also assist teachers. Staff development can help teachers fine-tune existing skills or master new approaches (Joyce & Showers, 1988). Teachers learn best from staff development when a combination of the following components is included: information about and theoretical background for the new skill or strategy; demonstration and practice in simulated or actual classroom settings; structured and open-ended feedback, and coaching for application (Bennett, 1987; Joyce & Showers, 1980).

Creating sustained change in curriculum and instruction relies heavily on staff development which provides teachers with knowledge about the nature and potential effects of new approaches (Fullan, 1991; Joyce, Showers, & Rolheiser-Bennett, 1987). The array of strategies to assist students relies on staff development in order to improve student learning. A strategy cannot work for students if teachers have not learned how to use it. Thus, an important component in supporting effective instructional strategies is the development of sound inservice education for teachers (Bickel & Bickel, 1986).

Strategies for Assisting Students. Strategies which assist students with disabilities can be teacher directed, peer directed, or student directed. An example of a teacher directed strategy is **curriculum-based assessment** which uses "direct observation and recording of a student's performance in the local school curriculum as a basis for gathering information to make instructional decisions" (Deno, 1987, p. 41). The focus is on expected curricular outcomes of the local school (Tucker, 1985). Such assessment and decision making allows for the individualized instruction needed by students with handicaps. It can help teachers decide what to teach based on what the student needs to know, and how to teach based on the student's responsiveness (Zigmond & Miller, 1986). Moreover, consistent and systematic monitoring of student progress has been associated with higher rates of learning (Robin, 1976; Tindal, Fuchs, Christenson, Merken & Deno, 1981).

Curriculum Based Measurement (CBM) offers a specific set of procedures for data collection and decision making. The purpose of CBM is to create a model teachers can use to evaluate effectiveness of interventions and improve the success of students who are academically handicapped (Deno, 1987). CBM research has produced a set of reliable and valid measures which can be used in classrooms to describe growth in terms of increasing scores on standard tasks. In their six year program of research, Mirkin, Fuchs, and Deno (1982) found CBM to improve teachers' effectiveness.

CBM offers several advantages to teachers, students, and parents (Deno, 1987). It contributes to improved communication since it provides clear, and easily understood measures of achievement; it provides more sensitive measures since data are collected frequently; it contributes to an improved data base; it provides a cost effective means for collecting and using data. Since CBM procedures are simple to administer, teachers can obtain normative data on student performance by sampling regular classroom peers.

Two peer-directed strategies for assisting students, which involve students working with one another to assist in learning, are peer tutoring and cooperative learning. **Peer tutoring** involves students serving as instructional agents for classmates by providing instructions and feedback in academic skills areas such as spelling, mathematics or reading (Lloyd, Crowley, Kohler & Strain, 1988). Peer tutoring initially developed in response to the need for increased one-to-one instructional time for many students (Jenkins & Jenkins, 1985). As Rosenshine and Berliner (1978) found in their review of research on effective classrooms, time spent engaged in relevant content ("academic engaged time") is an essential variable in predicting achievement. Given limitations on teachers' time, they cannot provide all the one-to-one instruction slower learners need to remain actively engaged. However, teachers found that other students could provide the needed individual attention through peer tutoring.

Peer tutoring provides students with an opportunity for active involvement and can be used with a variety of academic target areas (e.g., reading comprehension, spelling, mathematics). Peer tutoring has been successfully used with students with disabilities in a variety of settings (Delquadri, Greenwood, Whorton, Carta & Hall, 1986). It is most effective and skills transfer best to the classroom, when materials are similar to those in use in the classroom (Delquadri, Copeland & Hall, 1976; Harris, 1981). Peer tutoring has helped students with disabilities improve spelling, vocabulary, mathematics, and reading comprehension (Greenwood, Delquadri & Hall, 1984; Speltz, Shimamura, & McReynolds, 1982; Delquadri, Greenwood, Stretton & Hall, 1983; Slavin, Madden & Leavey, 1984).

Cooperative learning strategies involve students working together to accomplish shared goals such that they can reach their goals if and only if all involved students reach their goals (Johnson & Johnson, 1986). Students work in small groups to discuss material, help each other understand it, and achieve a goal such as earning a certificate. According to Johnson and Johnson (1986), cooperative learning must include four elements to be successful. These are: positive interdependence, individual accountability, collaborative skills, and group processing. Slavin (1987) underscores the need for positive interdependence (working toward a group goal) and individual accountability (the need for individual learning) as essential for successful cooperative learning.

Research evidence supports the effectiveness of cooperative learning in several areas. It contributes to student achievement (Johnson, Maruyama, Johnson, Nelson & Skon, 1981), improved attitudes toward learning, increased self esteem, and improved social skills (Johnson & Johnson, 1983, 1985a, 1985b), as well as positive relationships between students with and without handicaps in mainstream settings (Johnson & Johnson, 1975, 1978, 1984c; Johnson, Johnson & Maruyama, 1983). As Johnson and Johnson (1986) summarize, "cooperative learning should be used whenever teachers want students to learn more, like school better, like each other better, have higher self-esteem, and learn more effective social skills" (p. 554).

Self-directed strategies help students take an active role in their own learning. In her discussion of these strategies, Gleason (1988) points out that successful students are active learners. "In contrast, less successful students attend for only part of the time, write down a word or two, and rarely contribute. When assignments are given, they lack direction and the strategies needed for finding information in textbooks, looking up words in the glossary, interpreting maps, answering questions, or asking the teacher for help. By the end of the class, they have not finished the work and do not have the skills necessary for completing it as homework" (p. 52). The key for these students is to learn how to be actively involved in gaining and responding to information, and how to generalize these skills to other settings and content areas.

Research evidence supports the effectiveness of such student directed strategy instruction. In a seven-year research program examining the effectiveness of a Strategies Intervention Model, Deschler and Schumaker (1986) found consistent gains in academic performance. This model was designed to teach low-achieving students how to learn and perform tasks so that they could successfully analyze and solve novel problems. Harris, Graham and Freeman (1988) provide even further evidence that strategy training results in improved academic performance.

Summary

Historically, special education and general education have remained separate. Recent efforts to bring students with disabilities into general education settings face this historic separation. But as Bickel and Bickel (1986) point out, closely integrated programming is more productive than the historical separateness. Both special educators and general educators have skills and strategies worth sharing.

The goal of this project was to bring together special and general education professionals in a problem-solving-planning process that would lead to a model for change. The model emphasized school-wide change as special and general education teachers worked together towards a common set of goals, individual professional development as these teachers reflected upon and shared their best practices, and inclusionary practices as the teachers considered alternative instructional strategies for meeting the needs of all students in the general education

classroom. The project goal was based on the hypothesis that a school-based model to provide effective learning environments for all students would be most successful if it was tailored to the abilities and concerns of the education professionals who would implement it. The project sought to evaluate whether the participation of educational professionals in designing the model they would use would increase the effectiveness of the model.

RESEARCH APPROACH

Research Design. To evaluate the effectiveness of the problem-solving-planning model, the project originally intended to use an experimental research design, randomly selecting two schools in one of the two towns in the participating school district which had both an elementary and a secondary school as treatment schools, and two schools in the other town which had both an elementary and secondary school as contrast schools. General and special education professionals in the treatment schools would experience the problem-solving-planning model and collaboratively develop and use their own school-wide action plans for meeting the needs of diverse learners. The contrast schools would then be invited to adopt the plans developed by general and special education professionals in the treatment schools. In the fourth year of the project, after sufficient time had lapsed to investigate the degree to which participation in developing school-wide action plans affected the interest and ability of professionals in similar schools to adopt these same plans, professionals in the contrast schools could elect to participate in the intervention.

The concept of treatment and contrast schools proved difficult to implement in practice for two principal reasons: we could not randomly select the treatment and contrast schools, and changes in the economic and public policy conditions in the two towns studied created differences in the treatment and contrast schools beyond our control.

First, although we attempted random selection, we found that there were compelling pragmatic reasons to select the schools in the town of Richford as the treatment schools. Chief among these reasons was the forced resignation of the Enosburg elementary principal and the one-year appointment of an interim principal in his place just as our project began. Though the interim principal proved cooperative in the collection of project data during that first project year, there was turmoil and unrest among his faculty regarding this transition and concern regarding the leadership transition which would occur in the following year. The outgoing Richford elementary principal also expressed strong interest in the project; he would be staying on in the school as a fifth and sixth grade science teacher. We therefore followed the recommendation of the superintendent of schools and selected the Richford schools as our treatment schools.

Second, important differences emerged between the towns of Richford and Enosburg during the course of the project. When the project began, the towns appeared quite similar in terms of their agricultural and small business economic base, their local school taxing formulas, their enrollments and traditional school structures, the limited understanding and support of school boards for school improvement and inclusion of students with disabilities, their physical plants (including the fact that both elementary schools were in the process of being remodelled and expanded), and their limited exposure to external university or agency influences. The towns were located 10 miles from each

other, shared common special education services and administration, and sent their students to the same vocational training center.

Yet, beginning in the second year of the project, the following eight differences became noticeable:

1. Economic. The state-wide economic recession impacted Richford more than Enosburg. Many Richford farms and small businesses experienced reduced incomes or went out of business, families with limited incomes moved into Richford to take advantage of its lower housing costs, and the larger number of senior citizens in Richford living on fixed incomes saw their income levels decrease. In the second year of the project, the Richford school budget was voted down twice; in the third year of the project, the school budget was voted down three times. This resulted in many faculty members feeling their programs and practices were being adversely regarded by community residents. They did not feel appreciated by the community.

Meanwhile in Enosburg, the agricultural and small business base appeared more stable; in fact, a number of new businesses were established during the years of the project. Though community members considered carefully all annual budget requests, only once during the project years was a school budget voted down. Enosburg teachers also did not complain about the lack of community support for schools to the degree to which Richford teachers did; indeed, during the fourth year of the project, Enosburg community members were involved in writing a

mission statement for the schools, and developing long-term planning, involvement, curriculum and staff development opportunities for the schools.

2. Teacher Attitudes. At the secondary level, several Enosburg teachers and the principal were disgruntled about not being selected as the initial participants in the project. They felt they should have been selected over the Richford schools and "figured out" that they were serving as contrast schools in the project's research design. They were therefore somewhat uncooperative in the collection of data during the first three years of the project. We wondered to what degree an uninterested or negative attitude towards the project would impact the completion of measures such as school climate.

3. School Restructuring. The uncooperative attitude at the Enosburg secondary school reflected, in part, Enosburg's growing sense that their schools were instructionally better than the Richford schools. Enosburg was the recipient of two other unrelated federal grants during the period of the project, one for distance education and one for middle school development. Administrators and teachers created a middle school within the secondary school, incorporating technology throughout the curriculum. Richford did not receive any other external funding and continued their traditional junior high program.

4. School Boards. School board support for school change varied. The Richford board blocked several proposals for changing instructional and organizational school structures and

took an adversarial stance in teacher contract negotiations. On the other hand, the Enosburg school board, particularly during the fourth year of the project, actively encouraged their teachers to work collaboratively with them to improve instruction in the schools. They wanted to learn from teachers about how the schools could restructure and how they could assist.

5. Leadership. The leadership styles of the Richford and Enosburg principals were considerably different. Though there was transition in administrative roles in both towns, the principals in Enosburg appeared much more open to change than those did in Richford. They worked collaboratively with teachers and provided support for risk-taking and new ideas. They did not just manage their schools; they actively sought a vision for what their schools could be.

6. Student Mobility. Due to economic circumstances, primarily the availability of low-income housing or lodging with relatives, a number of families seemed to move regularly between the Richford and Enosburg towns and their schools. Several of these families included children receiving special services, thus the children were served by both school systems during the course of the project. This mobility made it difficult to decide to what degree the intervention affected the success of these students in their schools.

7. Enosburg Refusal to Adopt Plans. A critical feature of the initial research design was the comparison between schools that plan their own school-building model to those who use the

same model but have no role in planning it. When the Richford schools presented their plans to the Enosburg schools, and the project made commitments of time and resources to assist the Enosburg schools in adopting the plans, the Enosburg teachers basically said, "Thank you, but no." Even though the plans were developed by colleagues they knew from the neighboring town and addressed similar needs to those the Enosburg schools had identified, the Enosburg teachers said they preferred to create and implement their own plans. They spoke about previous district and school mandates to adopt "this program or that concept." Teachers said they were only interested in investing time in plans they had a voice in establishing. This response, though opposite to what we had hoped for in the initial research design, confirmed the project's hypothesis that an effective school-based model to provide effective learning environments for all students is designed by the professionals who will use it.

8. Combining Elementary and Secondary. In Richford, we conducted two separate interventions, one for the elementary teachers and one for the secondary teachers. In Enosburg, our resources and time commitment were such that we could offer only one combined intervention for interested teachers. Enosburg administrators and teachers, in fact, preferred to participate in a combined problem-solving-planning process because of their desire to develop a common sense of instructional purpose across the elementary and middle school programs.

In the face of these differences and changes, any one of which could have significantly affected our ability to obtain and compare project data, we decided to alter our research design. We turned to a case study, pre-test/post-test design that would permit us to describe both quantitatively and qualitatively the effect of the problem-solving-planning model on school-wide collaboration, individual professional development, and inclusionary practices in two sites (elementary and secondary) in Richford and one site (combined elementary and secondary) in Enosburg. We would compare baseline data, taken before the model was implemented, with data taken after full implementation of the model. If we found similar effects in different types of schools, that is in elementary and secondary schools, and in different types of settings, that is in the more traditional Richford setting and the more innovative Enosburg setting, then we could have some confidence that the problem-solving-planning model was at least in part responsible for those effects and could be generally applicable to diverse schools.

Project Phases. As Figure 2 illustrates, the project had five distinct phases.

Pre-Intervention	Intervention	Technical Assistance	Data Collection	Data Analysis

Figure 2.

Project phases.

The first phase, pre-intervention, was planning for the problem-solving-planning model. During this phase, we met with administrators and faculty to explain the project, interviewed and surveyed teachers to better understand the school cultures and identify what topics faculty wanted to learn more about during the problem-solving-planning process, planned the logistics of the process, and administered baseline measures.

The second phase was the implementation of the intervention or the problem-solving-planning process. Over the course of a year, teachers in a school engaged in 1) six sessions of "inquiry" into best practices for supporting inclusionary education, using case studies, related readings and expert practitioners, and 2) six sessions of "planning" to identify school-wide priorities for improving instruction for all students and to develop action plans to achieving these priorities. The sessions met after school or on scheduled in-service days. Teachers received three graduate credits for their participation.

The technical assistance phase was designed to foster teacher leadership in implementing the school-wide action plans. Volunteer "teacher-leaders" gradually assumed leadership within the school for realizing specific objectives outlined in the action plans, with support and resources from the project team.

The fourth and fifth phases were data collection and analysis. Baseline data were gathered at the beginning of the project using twelve key measures; these measures were repeated during the subsequent three years. The data were analyzed with

statistical analyses for quantitative measures, using SPSSX and the university's VAX 8600 and IBM 4381 mainframe, and a constant comparative method of content analysis for qualitative measures, using the "Ethnograph" software package for text-based data.

Timeline. The following table describes the timeline for the five project phases.

Table 3

Project Timeline

	1988-89 Fall/Spring		1989-90 Fall/Spring		1990-91 Fall/Spring		1991-92 Fall/Spring /Fall	
Pre-Intervention								
Richford	x							
Enosburg						x		
Intervention								
Richford		x	x					
Enosburg							x	x
Technical Assistance								
Richford				x	x	x	x	x
Enosburg								
Data Collection								
Richford	x	x	x	x	x	x	x	x
Enosburg	x	x	x	x	x	x	x	x
Data Analysis								
Richford		x		x		x	x	x
Enosburg		x		x		x	x	x

Measures and Data Collection. As Table 3 indicates, quantitative and qualitative measures were taken throughout the course of the project. Twelve measures were selected to provide information on the effectiveness of the project intervention in

the three areas of our conceptual model: school-wide change, individual professional development, and inclusionary practices.

Table 4

Project Measures.

School-Wide Change	Individual Professional Development	Inclusionary Practices
Surveys:	Surveys:	Self-Concept
Teacher School Climate	Teacher School Climate	CISSAR
Student Opinion	Teacher Involvement	BASS
Parent Opinion	in Decision-Making	CTBS
	Peer Leadership	Child Count
Teacher Interviews	Teacher Interviews	Teacher Interviews
Participant	Participant	Participant
Observations	Observations	Observations

The measures are described below along with information regarding related data collection procedures. Copies of those measures developed by project staff are provided in Appendix A.

The **teacher school climate survey** was part of the Connecticut School Effectiveness Questionnaire (Connecticut Department of Education, 1984) which uses 100 items on a 5-point Likert scale to assess changes in teacher perspectives in seven areas: safe and orderly environment, clear school vision, instructional leadership, high expectations, opportunity to learn, frequent monitoring of pupil's progress, and home-school relations. The secondary version of this survey adds five additional areas: teacher involvement in decision-making, teachers respected by others, academic press, teacher growth and renewal, and equity. The survey was administered by project

staff to teachers in faculty meetings each fall, including the fall of 1992 for only Enosburg teachers. Teachers not able to attend the faculty meetings were given a letter with instructions and an addressed stamped envelope, and follow-up telephone calls were made as needed to secure a maximum teacher response rate.

The **student opinion survey** was developed by project staff. It consists of nine items, simply stated and using a 3-point Likert scale, that ask for student opinions regarding the climate of the school. The survey was administered to all students, including those with disabilities, beginning in the fourth grade by project staff; the surveys were read as needed to students. To encourage true answers, students were told not to put their names on the surveys. This meant, however, that we were not able to distinguish between general education and special education student responses.

The **parent opinion survey** was also developed by project staff. It consists of nine items, again simply stated and using a Likert scale, and asks for parent opinions regarding the climate of the school. The survey was given by project staff members to parents participating in elementary school parent-teacher conferences each November as they entered the school. They completed it before going to their children's classrooms. Over 80 percent of all parents participated in these conferences during the four years of the project. At the secondary level, the surveys were mailed directly to parents by the participating schools in the late fall, with self-addressed and stamped

envelopes enclosed. To encourage true answers, parents were asked not to put their names on the surveys. This, however, limited our ability to distinguish between the responses of general education and special education parents.

Teacher interviews were conducted by the same project staff member each of the four years of the project in Richford and the first and third years of the project in Enosburg. The interview protocols called for similar questions each year regarding school change, teacher development, inclusionary practices, the collaborative process and technical assistance, and recommendations for improving the project. In the case of the Enosburg schools, the interviews also provided an avenue for teachers to express their interest in participating in the problem-solving-planning process. The interviews were recorded, analyzed and summarized by a project staff member.

The **teacher involvement in decision-making survey** is adapted from the "Condition of Teaching: A State by State Analysis" report (Carnegie Foundation for the Advancement of Teaching, 1988). The ten-item survey asks teachers to rate their involvement (not very involved to very involved) in such areas as selecting new teachers, determining whether students are tracked by ability into special classes, and shaping the curriculum. The survey was attached to the teacher school climate questionnaire described above and administered by project staff in faculty meetings during the fall of every year.

A peer leadership survey was developed by a project staff member, based on related research by Saxl, Miles & Lieberman (1990). It asked teachers to provide self-ratings on 18 leadership qualities, and then asked teachers to nominate three faculty members who frequently demonstrate these same skills. The purpose of the survey was to understand the degree to which "teacher-leaders" in the project were perceived as instructional leaders by their peers. The survey was administered to all teachers at Richford Elementary school in the fourth year of the project.

Student self-concept was measured through the Self-Perception Profile for Children, developed and validated by Harter (1985). This instrument includes 36 self-referent statements that assess self-concept in five domains (scholastic competence, social acceptance, athletic competence, physical appearance and behavioral conduct) and also includes an assessment of global self-worth (i.e., whether the child likes himself or herself as a person). Children in grades 3-6 were read the profile by trained project staff and provided individual assistance in completing the profile as needed. The Self-Perception Profile for Adolescents, designed to correspond to and follow the children's profile, was administered to all students in grades 7-12 in their English classes. This version of the instrument also includes 36 self-referent statements in the five domains and the area of global self-worth mentioned above, and three additional domains (friendships, appearance, and job).

For children in grades K-2, the Pictorial Scale of Perceived Competence and Acceptance for Young Children was individually administered by trained project staff. Students with learning disabilities completed the appropriate self-perception profile, depending on their grade placement in general education classrooms. The scores of students with learning impairments and multiple disabilities are not reported due to their difficulties in completing the profiles and the unavailability of the special education versions of the profiles.

Classroom observations were conducted in all regular classroom settings in the project schools using the Code for Instructional Structure and Student Academic Response (CISSAR/ University of Kansas). Two randomly-selected students, one general education and one special education (generally a student with learning disabilities), were observed one after the other in the same classroom, each for seven minutes. Teachers were not told which students were being observed. Using earphones and a portable tapeplayer that transmitted a beep every ten seconds, specially trained project staff members used a CISSAR observation form to record information on the structure of the classroom (what types of instructional activities students were involved in, whether in a group or individual situation, using what types of materials), the behavior and position of the teacher (whether the teacher was directly teaching or indicating approval or disapproval to students, where the teacher was physically positioned in the classroom), and the response of students (what

tasks students were actually engaged in, what types of appropriate or inappropriate classroom behaviors were evident). Inter-observer reliability was obtained through regular joint observations by the two project staff members administering the measures each year. Their scores were compared and considered reliable when a greater than .85 degree of reliability was achieved.

Student achievement was measured by the **Comprehensive Test of Basic Skills** (CTBS/McGraw Hill, 1981), a nationally normed standardized achievement test administered to all students in the project schools on an annual basis. The results of this test were made available to the project by the participating school district. Only two achievement scales, total reading competency and concepts and applications in mathematics using normal curve equivalencies (nce), were reported consistently each of the four project years and thus are included in this report. Generally, students with learning disabilities took this measure along with their peers; students with learning impairments and multiple disabilities did not, unless otherwise specified in their IEP's.

Another standardized achievement measure was conducted using the **Basic Academic Skill Samples** (BASS/University of Minnesota). During the first year of the project, all six projects funded under this federal special education priority agreed to collect data on two BASS sub-scales (Math Probe and Reading:Cloze) twice a year, in the fall and spring, for each of the subsequent three project years. Second and fifth grade students were targeted, as

were three types of students: students with learning disabilities, students eligible for Chapter 1 services (defined by placing in the fortieth percentile or lower on CTBS reading or math scores), and general education students. In addition to gathering data in the two second and the two fifth grades classes in the two participating elementary schools, we also gathered data in one of the fourth grade classes in each of the schools. Teachers were provided training and then administered the BASS samples in their own classrooms.

Child count or normative indicator data were obtained from the participating school district each of the four years of the project. This data, required by the State of Vermont under P.L. 89-313 or P.L. 94-142, includes information on all students on Individualized Educational Plans, including type of disability, type of services received, type of educational placement, and number of minutes in general education or separate special education settings. Unfortunately, we were not able to use the data compiled during the first two years of the project given concerns raised by participating teachers about the reliability of the data reported. Apparently, the district special education coordinator at that time did not compile accurate information for several of the project schools. During the third and fourth project years, however, a new district special education coordinator improved the reporting system; we feel confident that the data collected during the last two years of the project were accurate.

Project staff recorded their experiences and learnings at project schools in **participant observations** throughout the four years. Despite the distance from the university to the project schools, project staff visited the schools on an average of two to three times a week during the academic year to administer measures, plan and facilitate the problem-solving-planning process, and provide technical assistance. Staff members recorded their observations in field notes and minutes of regular staff meetings.

Timeline for Administering Measures. The following timeline for administering the project measures was followed each of the four project years.

Table 5

Timeline for Administering Measures.

Measure	Fall	Spring
Teacher School Climate	x	
Student Survey		x
Parent Survey	x	
Teacher Interviews		x
Teacher Decision-Making	x	
Peer Leadership		x
Student Self-Concept		x
CISSAR	x	
CTBS		x
BASS	x	x
Child Count	x	
Participant Observations	x	x

Consistency of Project Staff. Integral to the collection of the quantitative and qualitative measures for this project was

the consistency of the project staff throughout the four years. The four principal university staff members (the two co-principal investigators, the project coordinator and the research coordinator) together developed data collection and analysis policies and procedures, checked and reviewed data reports and findings as a team, and maintained throughout a common approach and philosophy for working with the participating school district and the project schools. Several team members developed strong professional relationships with administrators and teachers which allowed an intimate view of the process of change in these schools. These relationships, however, were balanced by other members of the project team keeping a more neutral and exploratory stance regarding the factors affecting school-wide change, individual professional development, and integration of inclusionary practices.

THREE CASE STUDIES

General Overview

The following three case studies describe the effect the problem-solving-planning process had on school-wide change, individual professional development, and inclusionary practices in the four project schools. They "tell the story" of how difficult it is to change schools, yet how powerful the desire for change is once teachers have the opportunity to learn about best instructional practices and then plan for integrating these practices in their schools. They show how special and general education professionals can together share responsibility for the instruction of all students.

The four project schools are located in Franklin Northeast Supervisory Union, a small and rural school district in northern Vermont. The district is comprised of five towns and serves approximately 1,600 students in five elementary schools, two secondary schools, and an area vocational center. Each town has a local school board which generally has authority over all aspects of local instruction; each town board elects a representative to a district school board which primarily coordinates district-wide programs. Characteristics of the project schools are described in Table 6. Due to concerns about the reporting of the special education population in Years 1 and 2, characteristics from Year 3 (1990-91) are provided. These figures are representative of those found during the other three project years.

Table 6

Characteristics of the Project Schools in Year 3 (1990-91)

Characteristics	Rich. Elem.		Rich. Sec.		Enos. Elem.		Enos. Sec.	
Total Enrollment	266	(100%)	269	(100%)	300	(100%)	336	(100%)
Special Ed.	64	(24%)	35	(13%)	47	(16%)	61	(18%)
Chapter I	126	(47%)	146	(54%)	128	(43%)	149	(44%)
Total Teachers	20	(100%)	22	(100%)	26	(100%)	30	(100%)
Full-Time	17	(85%)	20	(91%)	19	(73%)	26	(87%)
Part-Time	3	(15%)	2	(9%)	7	(27%)	4	(13%)
Age of Teachers								
20-29	0	(0%)	2	(9%)	7	(27%)	3	(10%)
30-39	12	(60%)	10	(45%)	11	(42%)	16	(54%)
40-49	8	(40%)	5	(23%)	5	(19%)	7	(23%)
50 +	0	(0%)	5	(23%)	3	(12%)	4	(13%)
Years Teaching at This School								
1-5	5	(25%)	8	(36%)	12	(46%)	19	(63%)
6-10	6	(30%)	5	(23%)	7	(27%)	5	(17%)
11-15	4	(20%)	2	(9%)	4	(15%)	4	(13%)
16-20	3	(15%)	5	(23%)	1	(4%)	2	(7%)
21 +	2	(10%)	2	(9%)	2	(8%)	0	(0%)
Teachers with MA's	9	(45%)	6	(27%)	7	(27%)	10	(33%)

Notes:

These figures do not include the 26 secondary students with learning impairments and multiple disabilities from Richford and Enosburg served at the Enosburg Area Vocational Center.

Students are eligible for Chapter 1 services if they place in the 40th percentile or lower on the CTBS reading or math standardized tests.

The numbers of students with disabilities receiving special education services are listed in Table 7 for the last two years of the project. As was mentioned previously, due to reporting errors and discrepancies cited by participating teachers in the

Table Number 7

Table Title : **Incidence of Children with Disabilities in Project Schools**

Years 3 & 4*		Learning Impair.	Hard Of Hearing	Deaf	Speech/ Language Impaired	Visual Impair	Serious Emotional Disturb.	Ortho. Impair.	Other Health Impair.	Specific Learning Disability	Deaf-Blind	Multi-handicapped	Develop Delayed	Total
Enosburg Elem. School	Yr. 3	6	2	0	15	0	0	0	0	24	0	0	0	47
	Yr. 4	14	1	0	6	0	1	0	0	20	0	0	0	42
Enosburg High School	Yr. 3	0	2	0	3	0	12	0	0	44	0	0	0	61
	Yr. 4	2	0	0	1	0	7	0	0	53	0	0	0	63
Enosburg Area Voc. Center	Yr. 3	24	0	0	0	0	0	0	0	1	0	1	0	26
	Yr. 4	25	0	0	0	0	0	0	0	0	0	1	0	26
Richford Elem. School	Yr. 3	12	0	0	4	0	2	1	1	44	0	0	0	64
	Yr. 4	7	0	0	5	0	2	1	0	32	0	1	0	48
Richford High School	Yr. 3	1	1	0	3	0	0	0	0	30	0	0	0	35
	Yr. 4	2	0	0	2	0	3	0	0	31	0	0	0	38

* Data taken from State of Vermont Childcount

state-required normative indicator or child count data collected by the district during the first two years of the project, the project has elected to report only data on students with IEP's for the 1990-91 and 1991-92 school years. It is also important to note that the program serving secondary students with learning impairments and multiple disabilities is housed at the Enosburg Area Vocational Center; many of these students, however, have been mainstreamed into appropriate classes and activities at the secondary school located one block away.

At the beginning of the project, the Richford and Enosburg schools shared common features. These features, which provide a context for the three case studies, included:

1. Leadership. All four project schools experienced leadership transitions during the year preceeding the beginning of the project. At the Richford secondary school, a veteran principal with over twenty years of experience had resigned and a new, much younger principal from out-of-state had been appointed. At the Richford elementary school, the athletic coach at the secondary school had just been named as the new principal, replacing a principal who wanted to go back to the classroom and teach. At Enosburg elementary school, a long-time principal had been asked to resign by the local school board and a one-year interim principal from a neighboring town had just been appointed. And at Enosburg secondary school, the popular principal had committed suicide the previous year and his assistant principal had been promoted, becoming one of three

female high school principals in Vermont in 1988. The school superintendent remained highly supportive of the project throughout these transitions and facilitated communication with the new principals.

2. State Mandates. The four schools were at different stages in complying with the new Vermont Public Schools Approval (PSA) process in which every school was required to compare certain aspects of the learning environment with state criteria. This entailed a significant time commitment from teachers to engage in self-examination and fully describe their compliance or non-compliance with the criteria. The Richford elementary school had completed the process just as the project began; the Richford secondary school was just commencing the process; and the two Enosburg schools would undertake the process in the third and fourth years of the project.

In addition to this mandate, teachers in all four schools complained at the beginning of the project about a number of change initiatives that had been "forced" on them in recent years, including a focus on mastery learning, specific reading programs, a new state-wide performance assessment program, the "homecoming" of elementary children with moderate and severe disabilities from a centralized district site, and a "scattered" approach to in-service training. They said they had no voice in many decisions made regarding instruction and in most programs and professional development activities they were required to participate in.

3. Building Additions. The two elementary schools were both completing asbestos removal projects and beginning the construction of building additions as the project began. By the end of the first year of the project, both schools had modern facilities and adequate space for a full range of educational programs. The secondary school buildings were less modern, though Enosburg's facility contained well-ventilated and sufficiently equipped science laboratories and a cafeteria, as well as dedicated space for a middle school program. The Richford facility did not contain such spaces, needed a new roof, and was considered "out-of-date."

4. Centers of the Communities. The Richford and Enosburg schools were the centers of their communities; basketball games brought out scores of community members; adult classes and clubs, organizations and even aerobic classes kept the buildings busy after school and at night; school events, especially musical shows and concerts, attracted large community crowds. The schools were "where the action is."

5. Traditional Structures. Perhaps because the schools were comfortable and familiar centers of communities, there had been few teacher and community efforts to change how the schools were organized and how instruction was delivered. The schools seemed traditional; there was little team-teaching, teacher consultation, cooperative learning, interdisciplinary instruction, shared decision-making, project teaching, technology support and integration, community service efforts, multiage

teaching, peer tutoring or other forms of peer instruction. Ability grouping, or homogeneous instruction, was the rule. Special education services were provided through a pull-out model in all four schools; there appeared to be few instructional or co-teaching relationships between general and special education teachers. In interviews with teachers during the first year of the project, many general education teachers wondered about the need for full inclusion and questioned their abilities to provide appropriate and challenging services for a diversity of students. The special educators too were reexamining their roles; most liked their separate, one-on-one times with students.

6. Other Common Features. In the first year of the project, both towns found it difficult to support the increasing costs of operating their schools due to a complex set of factors: state aid to education was decreasing, the local economies were dependent on struggling dairy farms and small businesses, and each town had a significant older and non-working population. The local school boards, however, had recently negotiated a three-year contract with the teachers' union that made teacher salaries comparable with neighboring school districts. But, as Table 6 indicates, many Richford and Enosburg teachers had accumulated many years of professional and educational experience; teacher salary costs were thus a significant item in the towns' budgets, a concern many community members voiced in local newspapers and at the annual Vermont Town Meeting Day in March.

Teachers in both Richford and Enosburg were concerned about the low achievement and expectation levels of students. Table 6 shows the high numbers of students eligible for Chapter 1 services. In response to these numbers and to a growing belief that students should be provided a maximum service level in their early years to prevent further need for services, the district concentrated Chapter 1 services in grades 1-3. Many teachers, however, were concerned that students in other grades needed greater instructional support. They also felt there was a relationship between the low achievement levels of students and the low expectations many teachers, community members and students themselves had for students. In a 1988 school district survey of future plans of graduating Richford and Enosburg seniors, half (50 percent in Richford and 48.5 percent in Enosburg) of the seniors reported pursuing higher education opportunities the year immediately after graduation; only 16.7 percent in Richford and 9.6 percent in Enosburg enrolled in a four-year institution.

The following three case studies build on this shared context. They describe teacher involvement in the problem-solving-planning process and the effect this school-wide change process had on individual professional development and inclusionary practices leading towards shared responsibility of special and general education professionals for all students. Themes and patterns found in common across the case studies are discussed in the General Findings section of this report.

Richford Elementary School

School-Wide Change. Richford elementary teachers were given the opportunity to learn more about the problem-solving-planning process in faculty meetings and informal talks with project staff members during the Fall of 1988. The teachers were told that participation in the process was voluntary and that they would have a voice in determining the topics the twelve sessions in the problem-solving-planning process would address during the course of the coming calendar year. The majority of teachers expressed interest in participating in the process, saying they especially appreciated having "the university come to us." They indicated that several factors would encourage their participation: university graduate credits, the provision of dinner following the sessions, and a local site for the sessions other than the school. We were able to accomodate these factors and also offered a modest stipend to participating teachers for work on the planning process beyond what the graduate credits required, though the stipend proved less of an incentive to participate than the other factors teachers themselves had identified.

A total of 19 out of 22 (86%) teachers and administrators decided to participate in the problem-solving-planning process in Richford Elementary School between January to December, 1989. The participants included eleven of the thirteen general classroom teachers, the three special educators, the two Chapter I teachers, the physical education teacher, the librarian, the guidance counselor, and the principal. Two of the three special

educators, however, did not join the process until September, 1989, when they were hired to serve the "homecoming" students with moderate and severe disabilities and the increasing caseload of students with specific learning disabilities. Two classroom teachers did not participate in the process; one because she would be taking a travel leave of absence during the spring of 1989, and the second because of personal reasons. A third did not participate because she was on maternity leave, but her interim replacement did and was later hired permanently by the school when the teacher elected to stay home with her family.

The elementary faculty were surveyed regarding their interest in learning about inclusionary practices in the areas of school organization, professional development, family-school collaboration, the learning environment, instructional technology and curriculum-based assessment. The following schedule for the process was then adopted, six "inquiry" sessions followed by six "planning" sessions. Expert practitioners were identified to provide first-hand knowledge and experiences about the inclusionary practices which faculty members identified.

Table 8

The Richford Elementary Problem-Solving-Planning Process: 1989

Month	Topic	Expert Practitioners
January	Including Teachers in Decision-Making	A principal and a teacher presented their team-based model.
February	Teaching to Diversity	A teacher discussed the multi-age model.
March	Organizing Special Education Services	A principal and a consulting teacher presented their model.
April	Alternative Instructional Strategies All Students	A special education coordinator presented her district's model.
May	The Learning Strategies Approach	A consulting teacher demonstrated one model.
June	Developing Challenging Curriculum for All	A guidance counselor presented her district's model.
August	Setting School Goals	The deputy education commissioner facilitated.
September	Staff Development to Achieve School Goals	An assistant superintendent presented her model.
October	Involving Parents to Achieve School Goals	A panel of parents presented their ideas.
October	Conditions Affecting Achieving School Goals	Project staff facilitated.
November	Prioritizing Goals and Identifying Activities	Project staff facilitated.
December	Developing An Action Plan	Project staff facilitated.

The first six inquiry sessions gave participants the opportunity to learn directly from educators in Vermont schools about different organizational and instructional models for meeting the needs of all learners in the general education classroom. The format of these sessions included 1) discussion of a related case study and readings, facilitated by several volunteer participants, 2) the presentation by expert practitioners followed by questions from participants, 3) dinner, and 4) discussion about what aspects of the model participants might be interested in adopting in their school. A critical feature of the sessions was the equal chance for everyone to contribute to the discussions. Going around the circle, or more accurately the square with the table arrangements we had to contend with, participants took turns speaking or passing if they had nothing they wished to share. A person could not speak again until everyone had had a chance to participate.

During the inquiry sessions, teachers gradually became comfortable and confident in the process and with each other. The conversations became more lively and reflective, and the topics stimulated interest in new instructional ideas. In retrospect, we gave too much reading but the case study approach did help to integrate that reading with the topics presented each session. Having participants take turns and facilitate the case study discussions also ensured that everybody had a visible and valued role in the process. Attendance at these sessions was good. Teachers seemed to enjoy the accompanying dinners and the

overall climate in which they could share and come to know each other better both personally and professionally.

The subsequent six planning sessions allowed participants to collectively 1) identify problems in their school and goals for addressing these problems, 2) consider what factors might encourage or discourage achievement of the goals including staff development and parent involvement, and 3) develop a concrete action plan with a timetable, persons responsible, resources needed, and evaluation measures for achieving these goals.

Several teachers felt comfortable enough with the process to "take over" one planning session and focus all participants on several school climate issues, including the increased negative attitudes and behaviors which they had observed among their colleagues. Though initially unsettling for some teachers, the discussion "cleared the air" and opened new lines of communication. It also raised the issue of the growing friction between the teachers and the principal who had not been regularly attending the problem-solving-planning sessions. The teachers were concerned that the principal would not support any of the planning work that was being done. They wondered if it was worth the effort to continue when he seemed so disinterested. We urged the principal to attend a later session in which he directly expressed his support for the planning process and the efforts the teachers were undertaking.

The participants identified six problems and related goals which as a school they wished to solve. They decided they could

realistically focus on the first three goals during the next eighteen months (January, 1990 to June, 1991) and the fourth goal during the following year (July, 1991 to June, 1992). The other goals would be tackled in subsequent years. They developed detailed action plans for the first three goals and identifed volunteer teacher-leaders to guide the technical assistance phase of the project.

Table 9

Richford Elementary School Action Planning Goals

1. Increase democracy in the school through teacher involvement in decision-making.
2. Promote positive self-esteem by teaching children social skills.
3. Enable children to learn in a variety of ways through staff development training in learning styles and strategies.
4. Develop community support for the school through school-community activities and service.
5. Teach problem-solving skills through a thinking skills program.
6. Foster a positive work ethic through a career education curriculum.

The six goals were designed to benefit all students. In general, by the end of the problem-solving-planning process, teachers seemed more open to the needs of all students and to adapting instruction to meet these needs. The special educators also emerged as respected voices and leaders in the process, perhaps because of their personalities but also because they were given a forum to reveal their talents and abilities to work with

others. Teachers' own evaluations of the problem-solving-planning sessions included: positive reactions to the format, content, and results of the sessions though some teachers wished we had moved into the planning mode faster and put off issues of staff development and community involvement to support change until later; positive attitudes regarding the increased communication and cooperation among colleagues, but also some reservations about the tensions surfacing and concerns made public among faculty members who felt increasingly free to discuss school and adult relationship issues; enthusiasm for the goals and action plans developed to achieve these goals; and concerns about the lack of leadership evidenced by the principal and the lack of general support and resources available to help realize teachers to realize the goals.

Other Collaborative Planning. One outcome of the problem-solving-planning process was that the process itself was adapted by teachers for use in other faculty and instructional support team (teacher assistance teams) meetings. These meetings led to other school-wide changes. For instance, in working on the goal of increasing democracy in the school, teachers focused on a similar Quality Circles (General Electric, 1988) process that several faculty members had previously worked with to problem-solve and make decisions. Two teachers agreed to adapt the process to the school, developing a "manual" for teachers to use as a framework for running meetings. The basic features of the process include: brainstorming problems, selecting one problem

for attention, identifying symptoms and causes of the problem, selecting a solution, implementing and evaluating it. Key to the process is parity among participants, going-around-the-circle so that each participant speaks or passes in turn, and no personal criticism of other participants. The faculty met in the Quality Circle process every two weeks; previous to the inquiry and planning process, the faculty met only every four to six weeks, whenever the principal decided to call a meeting.

The first problem selected by the group to address was discipline. They decided to establish a planning room, with specialized support available for children with chronic behavioral problems, and went to the school board to gain their support. The school board opposed the teacher plan, in part because the principal in executive session counseled the board against it. This "set-back" caused teachers to shy away from the process, though several months later the faculty agreed to continue meeting and addressing discipline issues but in a "smaller" and more inclusive way, i.e. by inviting a school board member to participate in the Quality Circles meetings.

Individual Professional Development. Another outcome of the problem-solving-planning process was the development of teacher leadership, the socialization of special and general education professionals, and adult development needs in driving individual professional development. Of particular note was the development of "teacher-leaders" in the technical assistance phase of the project. Four teams of teacher-leaders gradually took

responsibility for the four goals developed by participants in the problem-solving-planning process. They ran meetings, gained ideas and support for training and other activities related to the four goals, and organized and evaluated these activities. They received support from the project team including small stipends for their extra work, regular times to meet and share their experiences, and resources needed to implement various activities. The teacher-leader approach "worked" in the sense that faculty members seemed to "own" their goals because they were the ones deciding how to work towards realizing the goals. The project team was also able to step back from an active technical assistance role and still feel assured that work on the school goals would continue.

An example of the effectiveness of the teacher-leader approach was work on the second school goal of increasing self-esteem through instruction in social skills. With input from other faculty members, the teacher-leader team selected one social skills instructional approach (Skillstreaming: McGinnis & Goldstein, 1984) and with technical assistance by the project, developed a process for gradually introducing the approach in the school. They began with the "listening" skill and planned a timeline and process for how the instruction would be carried out school-wide. They organized a poster contest among children to enlist student support in effectively conveying the skill of listening. They organized an open house presentation for parents and wrote letters home and homework-type assignments, seeking

parent support for social skill instruction. They then introduced additional skills over a two-year period, allowing each skill to build on another and modelling the skills themselves, first in role plays and then in their everyday interactions with children and colleagues. Faculty members said the instruction, guided by the teacher-leaders, made a difference in the halls and lunchroom and especially with younger students. They were able to instill a certain tone with the younger students that they felt could be carried on with other teachers using the same approach. They were also able to use the social skills to help students themselves focus on and make adjustments regarding their own behavior.

A project paper, "Involving Special Educators in School Reform: The Development of Peer Leadership" (see Appendix B), provides a rich description of the teacher-leader process and the socialization that occurred among special and general education professionals. As a result of the problem-solving-planning process and the development of teacher-leaders, these professionals grew to understand each other better and adopt new roles in working together. They moved from a situation of separateness to one of increased collaboration.

Another example of individual professional development that had a lasting effect on the elementary school was the decision by a special educator to complete a graduate internship and licensure as a consulting teacher. She became interested in the models other schools had presented during the problem-solving-

planning process for including children with diverse needs in the general classroom. She enjoyed the growing collaboration between special and general educators in the school to address the needs of all children. She also felt the timing was right both in her professional and personal lives to undertake the commitment to graduate work. Therefore, she finished her coursework in the university consulting teacher program and during her internship, conducted at Richford Elementary School, she restructured the delivery of special education services so that she served the majority of students in the general education classroom. By the end of the project, she was seen as a collaborating teacher by other teachers;, she helped plan and implement lessons for both general and special education students. She was also viewed by general education students as a "regular" and not a "special" teacher. Moreover, she felt the students on her caseload were by and large succeeding in the general education classroom, supported by in-class rather than pull-out services. And her views were accepted and shared by other teachers in the school.

Inclusionary Practices. The goal of the problem-solving-planning process was the increased use of inclusionary practices by both special and general educators throughout a school. It was hoped that these educators, seeing the effectiveness of inclusionary practices, would be willing to share responsibility for instructing all students, no matter their ability level.

In Richford Elementary School, special and general education teachers together implemented a variety of inclusionary

practices. First, however, they wanted to know more about these practices, and have a chance to gradually introduce them in their classrooms and learn their effectiveness, before full-heartedly agreeing to adopt them. For instance, in implementing the third school goal, enabling children to learn in a variety of ways through staff development training in learning styles and strategies, the individual development of teachers was particularly evident. All faculty members, except two general classroom teachers with previous commitments, agreed to take a year-long course in the Learning Strategies Intervention Model taught by a special education teacher from another Vermont school who was trained by the University of Kansas Institute for Research in Learning Disabilities. The teachers learned several strategies, e.g. paraphrasing, and then had to work collaboratively with one or more teachers in teaching these strategies. This gave many teachers an opportunity to team-teach and encouraged them to use the strategies to make classroom accomodations in meeting the needs of diverse students. The class also helped teachers develop procedures and strategies for the two school instructional support teams which bring teachers of certain grade levels together on a weekly basis to discuss students who are having problems in school and develop strategies for addressing these problems.

A variety of inclusionary strategies adopted by Richford elementary teachers for assisting teachers and for assisting students have been previously mentioned; others have not. A

complete listing is provided below. Together they suggest the increased ability and willingness of teachers to share instructional responsibility for all students.

Table 10

Inclusionary Practices in Richford Elementary School

Strategies for Assisting Teachers

Development of collaborative teaming to assist teachers in identifying and addressing student needs in instructional support teams.

Adoption of a teacher consultation model to deliver special education services. Increased teaming of all teachers in the school.

Staff development opportunities including training in: cooperative discipline; crisis management; learning strategies; and learning styles.

Strategies for Assisting Students

Social skills training for all students through the Skillstreaming model.

Inclusion of special needs students in heterogeneous reading groups.

Increased thematic teaching, i.e. the week-long, school-wide circus unit for all students.

Adoption of the TAI (Team Accelerated Instruction) model and CIRC (Cooperative Integrated Reading and Composition) in 5th and 6th grades (Slavin, Karweit & Madden, 1989).

Increased peer tutoring and cross-age instruction.

Adoption of the Higher Order Thinking Skills (Pogrow & Buchanan, 1985) program for Chapter I reading services.

Shared Responsibility for All Students. The ability and the desire of both general and special education teachers to share

responsibility for all students was increased by the problem-solving-planning process and the follow-up technical assistance phase. Yet this achievement was tempered by concern over leadership issues in the school. At the end of the project, teachers felt the principal had not been encouraging of their efforts to improve the instructional climate for all children and had not included them in related decision-making. The principal, for instance, decided to mandate a discipline policy developed by another school, despite the efforts of a teacher-community group to draft a locally-crafted policy. Teachers also felt the principal was distant from the issues of including students with diverse needs fully in the school, and unaware of best inclusionary or instructional practices.

Teachers said their growing collaboration had helped them to cope with the lack of leadership support in the school. They turned instead to each other for encouragement, unlike past years when they would withdraw into their classrooms and stay isolated. They said things would be much worse if the project had not occurred and allowed them to come to value their colleagues both personally and professionally. They felt "connected" in the school with each other and with their students.

In general, teachers at the end of the project seemed more open to change. The project paper, "Making Connections Through Voice: Teacher Receptivity to Change" (see Appendix C), draws extensively on teacher interview data to describe why some teachers were more willing to change than other teachers.

Integral to the change process was the need to find meaning and efficacy in change, particularly through having a voice in determining the change itself. Richford elementary teachers described the problem-solving-planning process as opening their eyes to the possibilities for continuing to become the best teachers that they can be. They particularly enjoyed the exchange of ideas with expert practitioners about inclusionary practices, that pushed them to think in new ways about how their schools could meet the needs of all students. The dialogue was important to them, even when they became concerned about not having the right conditions to always act on these practices.

Richford Junior and Senior High School

School-Wide Change. The problem-solving-planning process was implemented with the faculty of Richford Junior and Senior High School in a time frame (January through December, 1989) and with a format (twelve inquiry and planning sessions using case studies, readings and expert practitioners) similar to that of Richford Elementary School. However, fewer secondary faculty members (12 out of 21 or 57%) than elementary faculty members were able to participate. This was primarily due to the fact that the secondary school was undertaking the Public School Approval process for state certification during the same year. This process required faculty members to frequently meet in order to develop an extensive report citing compliance and noncompliance with required state criteria. Seven teachers cited this intensive time commitment as hindering their participation

in the project. Two other teachers mentioned extracurricular and other professional development commitments as precluding their involvement in the problem-solving-planning process. The faculty members who did participate were seven subject area teachers, the special educator and the special education aide, the librarian, the guidance counselor, and the principal. There was one change in participation during the process: the librarian left the school in June, 1989, to take another school position; however, the art teacher, who had been working towards library certification, was appointed the new school librarian and a new art teacher was hired and joined the problem-planning-solving process in August, 1989.

Though not every teacher participated in the process, all did complete a survey regarding the inclusionary practices they would like to learn more about. The results of the survey led to the following schedule of twelve sessions, six inquiry and six planning sessions, and the identification of appropriate expert practitioners. Non-participating faculty members also agreed to attend a one day in-service session at the mid-point of the problem-solving-planning process (August) in order to learn what participating faculty members had been learning and to establish school-wide goals to guide the action planning phase of the process.

Table 11

The Problem-Solving-Planning Process in Richford High School

Month	Topic	Expert Practitioners
January	Including Teachers in Decision-Making	A principal and a teacher presented their team-based model.
February	Teaching to Diversity	A teacher discussed the multi-age model.
March	Alternative Instructional Strategies	Two teachers demonstrated their cooperative teaching model.
April	The Learning Strategies Approach	A consulting teacher presented her model.
May	Detracking High Schools	A curriculum coodinator described his district's model.
June	Increasing Expectations for All Students	A team of teachers and students from a restructured high school presented their model.
August	Setting School Goals	A university professor facilitated.
September	Staff Development to Achieve School Goals	An assistant superintendent presented her model.
October	Involving Parents to Achieve School Goals	A panel of parents to presented their ideas.
October	Conditions Affecting Achieving School Goals	Project staff facilitated.
November	Prioritizing Goals and Identifying Activities	Project staff facilitated.
December	Developing An Action Plan	Project staff faciliated.

As we found with the Richford elementary teachers, it took several sessions for teachers to build trust in each other and become comfortable with the problem-solving-planning process. However, just as the participants were entering the action planning stage in the fall (1989), and had developed a sense of purpose and identity as a team, a difficult crisis occurred which affected the momentum and efficacy of the entire process. The principal collapsed at school and was found to have a malignant brain tumor. Surgery was unable to completely remove the tumor, thus the principal underwent experimental radiation therapy. He was not able to resume his full-time responsibilities until the next summer (1990). Then, during the fall (1990), after several months of remission, the principal suffered a relapse and over the space of three weeks became fully disabled. During the following spring (1991) he died.

Because the principal had been such a positive driving force behind teacher participation in the problem-solving-planning process, and teachers were clearly distressed at the uncertainty of his situation, we were asked by faculty members to postpone our planning sessions until "things settled down" and teachers understood what would happen next. They said it was hard to think about changing the school when they were not sure who their leader would be. We were asked to use one of our planned sessions as a time for all faculty members to come and share their feelings and concerns; all faculty members did so and seemed pleased to have an outside source of support. We also

provided resources to the team of three teachers who jointly served as acting principal during the principal's absence, first on a full-time basis and then on a part-time basis as the principal gradually resumed some of his duties, for the rest of the 1989-90 school year.

After the principal's condition stabilized in January, 1990, we held several final sessions with the other participating faculty members. Though they did create action plans to address three of their goals, it was clear that the excitement and collaborative energy that the process had built among faculty members were not as strong. Participants began implementation of several activities during that school year, but decided to delay more wide-spread change actions until the continued situation of the principal was clear. After the final relapse of the principal, a popular English teacher who was serving as assistant principal for the 1990-91 school year was named sole acting principal; she was permanently named to the position just before the principal's death. Though this new principal was not a participant in the problem-solving-planning process, she was supportive of the project and actively sought advice and resources from the project team during the final project year.

The problem-solving-planning process resulted in four school-wide goals. The third goal was not addressed in the planning process as the school board decided to delay seeking funding for capital improvements until the town's financial picture improved.

Table 12

Richford High School Action Planning Goals

1. Increase community support and involvement by developing a series of short courses which involve school staff, students and community members together as both teachers and learners in alternative learning formats.

2. Challenge each student to fulfill his or her ability through a series of hands-on staff development seminars that demonstrate new strategies for instructing a variety of learners.

3. Establish a clean and bright school environment, that enhances student attitudes about learning, through redesign and restoration of the school building and grounds.

4. Continue the family atmosphere of the school, concerned about the needs of every student, through a student advisory system.

In their evaluations of the problem-solving-planning process, participants cited: their increased knowlege about different ways to teach and meet the needs of a variety of students; the increased communication among teachers who, though they knew each other personally, had never talked professionally with each other in an in-depth and philosophical way; their appreciation of something tangible resulting from the sessions, for instance, the clear school goals and specific activities planned; and their concern that the momentum for change evolving from the process would continue to be sidetracked by the principal's illness.

Individual Professional Development. One goal that participants continued to work on through the leadership crisis and transitions was organizing professional development seminars

to demonstrate new strategies for instructing a variety of students. In response to a faculty survey and the input of a teacher-leader team, three five-session seminars were held on: effective use of classroom time including teacher reflection on their own teaching styles; teaching thinking skills across the curriculum; and new approaches to teaching, including peer power, in heterogeneous classrooms. Teachers and students from several Vermont schools participated in the seminars as guest practitioners; they modelled the way that these practices are being used in other instructional settings. The seminars were preceeded by in-service presentations to all faculty members on the same topics. The purpose of these presentations was to develop a common language and set of assumptions around teaching in alternative ways to better address the needs of all students.

During the last year of the project, the new principal built on this professional development work and focused that year's in-service efforts on developing school curricula that would integrate and address the needs of all learners. As a teacher, she had been concerned that there were no complete 7-12 written curriculum guides for any subject area in the school, a weakness that the state's Public School Approval process noted and demanded work on. There were also no subject-area departments to coordinate this curriculum work and consider instructional alternatives. Thus, sessions were lead by project team and university special education faculty members to develop team-building skills for teachers to work on small department teams;

establish a process somewhat similar to the problem-solving-planning process for writing curriculum guides, including reviewing curriculum guides from other schools as possible models and establishing a plan and timeline for writing curriculum over a period of several years; and explore appropriate instructional strategies for effectively delivering the curriculum to diverse learners in the school.

Inclusionary Practices. Participants in the project were concerned that the environment of the school was not welcoming and accepting of all students. Though the school had always considered itself to be one large family, teachers felt that sense of family was disappearing. They decided to focus on two primary practices during the project. The first was creating a student advisory system so that every student would have an adult in the school interested in their success in the school. Led by two teacher-leaders who assumed the responsibility for garnering additional faculty support and implementing the system, a pilot system began and continued during the third and fourth years of the project. Teachers of seventh, eighth and ninth graders agreed to a three-year rotation of what had previously been considered homeroom duty. Thus a seventh grade homeroom teacher would become the advisor for the same students for a three-year period, until the students moved to tenth grade. Depending on teacher and student evaluations of the system, the system would then be expanded to possibly include a six-year rotation through twelfth grade. During the advisory period, faculty members would

have time to informally talk and get to know students, monitor their school work and performance, and be available to provide advice and assistance as needed. As an important "tool" for teachers being able to stay abreast of student performance and other issues, the two teacher-leaders, with input and cooperation from fellow teachers, developed a four-week student progress report which was used by all teachers to speak concretely with advisees about their current progress in school.

During the fourth year of the project, drawing on the interest and support from the new principal, the emphasis on helping all students to feel supported and accepted in the school led to a focus on peer mediation to help students themselves resolve discipline issues in the school. Teachers had a concern that students were unable to resolve "simpler" issues amongst themselves and that therefore these issues led to time away from class as the principal tried to help students negotiate with each other in finding a resolution. Having noticed that several nearby elementary schools had successfully created peer mediation systems, this faculty wondered if a secondary school system could be initiated.

The new principal and a participating faculty member in the project received special training in peer mediation and conflict resolution from Community Boards, a community-building training program based in San Francisco, in the late fall (1991). They then selected a pilot team of seventh grade students, from diverse backgrounds and academic abilities, to be trained as peer

mediators during the winter and then to implement the system, primarily during lunch periods, study halls, and before and after school, with seventh graders. Regular meetings to review the mediators' work and their documentation of the disputes they helped to mediate were held. The pilot year was a success and faculty decided to fully implement the model, training a new group of seventh graders and continuing with the now eighth graders, during the fall of 1992.

Participants in the problem-solving-planning process had also identified as a student-assisted inclusionary strategy the development of alternative learning formats or short courses that would allow community, faculty and student members to learn in new ways together. This strategy proved difficult to realize, however, because it was associated most closely with the principal who died. Another teacher had wanted to work with the principal as a team in coordinating these courses; with the principal's death, however, the teacher lost interest in continuing to work on developing this strategy.

Specific inclusionary practices adopted by Richford secondary teachers are described in the Table 13.

Table 13

Inclusionary Practices in Richford High School

Strategies to Assist Teachers
Development of collaborative teaming skills for instructional support teams, establishing subject-area departments, and curriculum writing. Increased team-teaching in the school.
Professional development training in effective use of teacher time in the classroom.
Strategies to Assist Students
Heterogeneously assigning all students to student advisories with the same teacher for seventh through ninth grade years.
Peer mediation and conflict resolution training for use with all students.
Increased use of higher order thinking skills for all students.
Expanded use of peer tutoring and collaborative grouping in the classroom to support the learning of all students. Increased use of hands-on materials.

Shared Responsibility for All Students. The project did not have as significant an impact on teacher beliefs, practices and attitudes regarding the responsibility for the learning of all students as had been expected due to the long-term illness and death of the first principal. The problem-solving-planning sessions created an interest and momentum in change, even though all teachers were not fully participating. But the leadership crisis interrupted the change process, leading key teachers who had initially agreed to advocate for and help realize the action plans to become uncertain about investing their time and energy until they knew who would be their principal, for how long, and

to what degree that principal would be committed to the project. During the fourth year of the project, when the curriculum and peer mediation work was initiated, the new principal was instrumental in taking the initiative and getting other people involved. This, however, countered our original intention that the movement towards change would come from the faculty themselves, after initial reflection and planning by teachers. Crises, which happen in many ways in many different schools, highlight the degree to which leadership is a central component in the change process. An effective school leader can help create an environment in which teachers feel comfortable in taking risks and exploring new ways of organizing instruction.

Several concrete activities did result, impacting the degree to which all students were made to feel part of the school. The secondary teachers, who were out of the mainstream of teacher development activities in the state because of their isolating geographic location, saw and understood first-hand alternatives for meeting the needs of diverse students. They began activities to help all students "fit into" and "feel responsible for" the school. They also seemed to communicate better as a result of the project. Those that participated in the problem-solving-planning sessions said they were better able to handle the leadership crisis because they felt they could and wanted to turn to their colleagues for support and understanding. They had come to know and trust each other personally and professionally.

The teachers also said that before the principal's illness, he had become more inclusionary in making school decisions: teachers were asked for their opinions, listened to, and made part of the solutions. This change, perhaps, provided an atmosphere in which a teacher team could assume responsibility for the school on an interim basis. Teachers wanted to pitch in and help, and felt they truly made a difference in keeping the school running on an even keel during the crisis. Teachers also felt the appointment of the assistant principal, "one of them," as permanent principal was a positive statement regarding their being listened to and respected as school professionals.

On a comparative note, teachers in the secondary schools in this project seemed more isolated than teachers in the elementary schools. As the paper on "Teacher Receptivity to Change" recounts (see Appendix C), there is little professional interaction in terms of sharing classes and planning. There is little time for teachers to personally interact except during a twenty-minute lunch, which for many teachers is their only free time during the day. Teachers seemed to have developed their best way of teaching and stuck with it. They seemed much more resistant to new ways of teaching, though once they saw and experienced a new method they appreciated its potential.

In many ways, however, the elementary and secondary teachers shared similar concerns. They both talked about the lack of power and impact they have on their schools. They discussed the impact of budget cuts on their programs and how they felt

personally when certain positions or programs seemed targeted by the school board for reduction. They talked about the need for more community involvement and support - for schools in general and for their own work as teachers in particular.

Enosburg Elementary School and Middle/Senior High School

School-Wide Change. Thirty-five Enosburg faculty members participated in the problem-solving-planning process between August, 1991 and May, 1992. They included eighteen elementary teachers, seven secondary teachers, four shared teachers (for physical education, music, libraries, and health education), one instructional aide, and three administrators. Sessions were held at a neutral community site, again primarily after school and for graduate credit.

Three aspects distinguished the Enosburg experience with the problem-solving-planning process from the Richford experience. First, the Enosburg participants wanted to focus the process on addressing a problem they had already identified - developing curriculum that is appropriate and challenging for all students. They were concerned about the lack of written curriculum guides in the elementary school, the overlaps and gaps in what was being taught in certain curricular areas, and the limited articulation between the elementary and secondary curriculums. The faculty members wanted to use the process to develop a common understanding about what should be taught in the schools and how. This understanding would then lead to the actual writing of curriculum guides in the following year.

A second distinguishing feature of the problem-solving-planning process in Enosburg was the increased emphasis on small group work. Heterogeneous cooperative groups were established at the beginning of the process and asked to work throughout the school year on specified tasks related to specific subject areas in the curriculum. Because the project was in its last year, there would not be the same amount of time to nurture and develop peer leadership among Enosburg teachers as we were able to take with the Richford teachers. The peer leadership, however, had proved instrumental to the success of the Richford action plans. Hopefully, the cooperative subject-area groups would "speed up" the development of peer leadership in Enosburg by allowing groups of teachers to begin working together more closely and more intensively from the beginning. There would be opportunities for all participants to gain and demonstrate leadership skills, and for a few key faculty members to naturally emerge as leaders to carry forward the curriculum development process in future years.

The third distinguishing feature was the initial strong support for collaborative change and curriculum work from the local school board and local administrators. Several leadership transitions had occurred in the months immediately preceeding the beginning of the problem-solving-planning process. The secondary principal had been asked to resign, and few qualififed people applied for the position, in large part due to the politics of the local school board. When a key member of that board failed in her reelection bid, the board decided to change the way it did

business. The board agreed to adopt a collaborative leadership style; they hired an interim principal for the senior high school program, promoted the assistant secondary principal to the new position of middle school principal, and hired a university faculty member, Amy Mellencamp, who was also on the staff of this project, as a part-time consultant in collaborative teaming.

The school board wanted to create collaborative relationships throughout the school system and, as evidence of this collaboration, have teachers involved in hiring a permanent senior high principal. Unlike years past, the board specifically sought interactions with teachers and wanted to work with them as a team in improving the schools. They also encouraged principals to work as a team in not only running the schools but also in educating the school board members about best educational practices. This climate proved highly conducive to the project and led to shared meetings with the school board and other interested community members. It also allowed the schools to handle an unexpected leadership transition during this final project year. The interim senior high principal resigned after only two months for personal reasons; the middle school principal then moved to the senior high position; and the elementary guidance counselor replaced the middle school principal.

The problem-solving-planning process began with two August in-service sessions. They were followed by eight additional two-hour sessions. Table 14 describes the content of these sessions, developed in consultation with Enosburg faculty members.

Table 14

The Problem-Solving-Planning Process in the Enosburg Schools

Month	Topic	Guest Practitioners
August	Curriculum Development through Reflective Practice	A school team presented their model.
August	Considering the Needs of Special Education Students in Curriculum Development	A consulting teacher presented her school's model.
September	Issues of Grouping and Tracking in Developing Curriculum Development	A consulting teacher discussed his district's integrated, essential-learning curriculum for all students.
October	Integrating Basic Skills in Curriculum Development	A consulting teacher and a principal presented their school's model.
November	Scope, Sequence and Depth: Developing a Curriculum that Fits Diverse Learners	A unversity professor presented one model.
December	Action Planning for Curriculum Development	Project staff facilitated.
January	Connecting Curriculum Planning in Enosburg Schools	A school board member, the district special education coordinator, a state department curriculum specialist, and a teacher presented their perspectives.
February	Curriculum Presentations to the School Board	Enosburg teachers presented.
March	Curriculum Presentations to the School Board	Enosburg teachers presented.
April	Developing School-Wide Curriculum Goals for All Students	Project staff facilitated.

Individual Professional Development. As a result of the collaborative process, special education teachers and general education teachers with special education graduate training became integral members of the curriculum teams. In several cases, they took leadership roles on the teams and became resources for general education teachers in modelling curricular units and instructional strategies for use with all students in the classroom. Several teachers spoke about how their perceptions of the abilities of children with disabilities had changed. They said they were more willing to include all students in all classroom learning activities and felt comfortable in being able to do so.

Teachers planned to continue their development as professionals in two principal ways. The newly-formed Enosburg K-12 Staff Development Collaborative Committee, composed of faculty, administrators, school board and community members, sought faculty input and designed a series of professional development seminars for the coming year (1992-93). These seminars would provide knowledge and experience in instructional practices which teachers and administrators had identified through the problem-solving-planning process.

The schools also successfully wrote a grant for Enosburg faculty members to begin writing a K-12 science curriculum. Teachers would participate in a four-day summer work session, followed by three in-service days during the school year, to link the new Enosburg schools statement of mission and the goals from

the problem-solving-planning process for science. The newly formed Enosburg K-12 Curriculum Collaborative Committee, also composed of faculty, administrators, school board and community members, assumed the overall coordination of curriculum development for the schools and established a three-year curriculum-writing cycle to review, rewrite, implement and revise curriculum guides for all subject areas.

Inclusionary Practices. One outcome of the problem-solving-planning process was the decision by four second, third and fourth grade Enosburg teachers to create three multiage classrooms combining grades 2-4. A primary reason for their interest in multiage instruction was the concern that they were not adequately addressing the needs of all learners in the classroom. Inherent in multiage instruction is a student-directed, project-oriented, and collaborative approach to learning, and the opportunity for teachers to come to know, understand and teach to the individual needs of students over an extended time period, in this case three years. The four teachers (one teacher was part-time along with her duties as part-time assistant principal) agreed to work as a team. In preparation for the change, they researched and reported on the benefits of multiage teaching, visited schools with multiage classrooms, successfully sought parent support, established a team meeting and planning process, and met regularly over the summer to plan common curriculum and instruction. The teachers began multiage instruction in the fall, 1992.

Shared Responsibility for All Students. Because the problem-solving-planning process was just completed in April, 1992, it is too soon to expect significant changes in inclusionary practices, apart from the increased socialization of special and general education teachers, the professional development training in writing curriculum for all students, and the specific student-assisted strategy of multiage instruction. However, we can say that the process resulted in 1) an increased awareness of what is being taught in the schools and why, 2) an increased understanding of the needs of diverse learners, how current curricula are not meeting these needs, and how curricula can be adapted or changed to better meet these needs, 3) knowledge about how to write a curriculum and the critical steps in any problem-solving-planning process, 4) increased communication among staff members including how to function as teams, and 5) specific subject-area goals and directions for the next phase of curriculum development work to benefit all students in the Enosburg schools.

GENERAL FINDINGS

The three case studies suggest general findings regarding the effectiveness of school building models for developing shared responsibility among all educational professionals for the learning of all children. These findings are described below, following the three main features of the problem-solving-planning model: school-wide change, individual professional development, and inclusionary practices.

School-Wide Change. The problem-solving-planning process was based on three beliefs: the needs of students vary from school to school, the needs of school professionals also vary from school to school, thus professionals at the individual school level must be involved in researching, selecting, and implementing organizational and instructional strategies most appropriate for meeting the needs of all students and all professionals who work with these students. In the four project schools, the problem-solving-planning process:

1. **Was effective in creating change in schools.** The five stages of the process - defining problems, analyzing problems, brainstorming potential solutions, selecting one solution, and developing strategies - each proved critical in allowing participants to systematically and collaboratively explore alternatives for better addressing the needs of all students.

2. **Was adaptable to a variety of settings.** The process proved equally successful in an elementary, secondary or a combined elementary-secondary situation. It allowed participants

in these different settings to focus in on problems that were of particular interest to schools, but also provided a general and consistent structure for addressing these problems. We detected no differences in the ways elementary and secondary participants reacted to the process; they both found the opportunity to learn from each other and then collaboratively plan to put in practice what they have learned to be beneficial. Participants were also able to adapt the process, for instance to guide faculty and instructional support team meetings, in order to develop more collaborative decision-making in their schools.

3. **Increased the voice teachers had in determining how students would learn in their schools.** At the beginning of the project, many teachers said they had more influence in their classrooms than in their schools as a whole. They wanted to be listened to and respected as experts who knew the needs of the students they were serving. The paper "Making Connections through Voice: Teacher Receptivity to Change" (Appendix C) vividly describes the factors that teachers said affect their ability and willingness to accept change in their schools. The most important of these factors was voice. Teacher voice was in fact the foundation around which the problem-solving-planning process was designed; teachers collaboratively decided what they wanted to learn, defined and identified solutions to problems, and selected and planned to achieve one solution.

Table 15 and 16 describe the increased ability of teachers to make decisions and affect the climate of their schools.

Table 15

Mean Teacher Responses to School Effectiveness & Climate Survey

Characteristics	Year 1	Year 2	Year 3	Year 4	Year 5
1. Safe and Orderly Environment					
Richford Elem.	3.62(18)	3.60(21)	3.09(17)	3.20(18)	-
Enosburg Elem.	3.54(17)	4.22(19)	4.03(20)	3.70(20)	4.11
Richford Sec.	3.40(25)	3.43(28)	3.44(17)	3.71(18)	-
Enosburg Sec.	3.52(34)	3.68(30)	3.25(22)	3.43(24)	3.93 (21)
2. Clear School Mission					
Richford Elem.	3.64	3.53	3.23	3.30	-
Enosburg Elem.	3.23	3.36	2.96	2.75	2.69
Richford Sec.	3.30	3.52	3.58	3.67	-
Enosburg Sec.	3.55	3.62	3.51	3.60	3.94
3. Instructional Leadership					
Richford Elem.	3.03	2.71	2.52	2.58	-
Enosburg Elem.	3.19	3.81	3.26	3.08	3.51
Richford Sec.	2.79	3.09	2.94	3.27	-
Enosburg Sec.	3.16	3.39	2.93	2.75	3.28

Characteristics	Year 1	Year 2	Year 3	Year 4	Year 5
4. High Expectations					
Richford Elem.	3.30	3.22	2.93	3.04	-
Enosburg Elem.	3.17	3.32	3.29	3.15	3.37
Richford Sec.	2.97	3.20	3.12	3.48	-
Enosburg Sec.	3.32	3.42	3.22	3.49	3.83
5. Time on Task					
Richford Elem.	3.76	3.56	3.42	3.45	-
Enosburg Elem.	3.45	3.64	3.73	3.48	3.54
Richford Sec.	3.15	3.31	3.31	3.61	-
Enosburg Sec.	3.17	3.15	2.84	3.11	3.33
6. Frequent Monitoring of Progress					
Richford Elem.	3.51	3.42	3.27	3.30	-
Enosburg Elem.	3.57	3.69	3.73	3.47	3.62
Richford Sec.	3.00	3.01	3.09	3.24	-
Enosburg Sec.	3.09	3.17	3.06	3.12	3.44

Characteristics	Year 1	Year 2	Year 3	Year 4	Year 5
7. Home-School Relations					
Richford Elem.	3.35	3.13	3.01	2.96	-
Enosburg Elem.	3.21	3.37	3.35	3.16	3.17
Richford Sec.	3.01	3.06	3.07	3.16	-
Enosburg Sec.	3.12	3.12	2.94	3.25	3.55
8. Involved in Decision-making					
Richford Sec.	3.16	3.54	3.71	4.00	-
Enosburg Sec.	3.47	3.52	3.14	3.40	3.91
9. Teachers Respected by Others					
Richford Sec.	3.63	3.89	3.85	4.01	-
Enosburg Sec.	3.68	3.70	3.38	3.57	3.88
10. Academic Press					
Richford Sec.	3.04	3.19	3.17	3.39	-
Enosburg Sec.	3.17	3.21	2.95	3.14	3.52

Characteristics	Year 1	Year 2	Year 3	Year 4	Year 5
11. Teacher Growth & Renewal					
Richford Sec.	3.46	3.52	3.51	3.64	-
Enosburg Sec.	3.81	3.71	3.55	3.54	3.88
12. Equity					
Richford Sec.	3.47	3.54	3.51	3.63	-
Enosburg Sec.	3.51	3.63	3.39	3.50	3.71

Questionnaire developed by the State of Connecticut, Department of Education, 1984. Teachers responded to a total of 100 questions in seven categories (elementary) or twelve categories (secondary) using a 5 point scale: strongly disagree (1), disagree (2), undecided (3), agree (4), strongly agree (5).

Table 16

Teacher Involvement in Decision Making

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
1. Selecting New Teachers								
Richford Elem.	5.6% (18)	94.4%	52.4% (21)	47.6%	29.4% (17)	70.6%	30.0% (20)	70.0%
Enosburg Elem.	5.9% (18)	94.1%	5.6% (19)	94.4%	19.0% (23)	81.0%	87.0% (23)	13.0%
Richford Sec.	4.0% (25)	96.0%	10.7% (29)	89.3%	61.1% (18)	38.9%	82.4% (18)	17.6%
Enosburg Sec.	22.9% (35)	77.1%	34.5% (30)	65.5%	19.0% (22)	81.0%	30.4% (24)	69.6%
2. Setting Standards for Student Behavior								
Richford Elem.	83.3%	16.7%	61.9%	38.1%	52.9%	47.1%	60.0%	40.0%
Enosburg Elem.	35.3%	64.7%	68.4%	31.6%	52.4%	47.6%	69.6%	30.4%
Richford Sec.	52.0%	48.0%	33.3%	66.7%	72.2%	27.8%	83.3%	16.7%
Enosburg Sec.	52.9%	47.1%	86.2%	13.8%	57.1%	42.9%	79.2%	20.8%

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
3. Deciding School Budgets								
Richford Elem.	38.9%	61.1%	61.9%	38.1%	35.3%	64.7%	35.0%	65.0%
Enosburg Elem.	17.6%	82.4%	50.0%	50.0%	47.6%	52.4%	42.9%	57.1%
Richford Sec.	32.0%	68.0%	55.2%	44.8%	47.1%	52.9%	41.2%	58.8%
Enosburg Sec.	40.0%	60.0%	62.1%	37.9%	28.6%	71.4%	29.2%	70.8%
4. Choosing Textbooks and Instructional Materials								
Richford Elem.	66.7%	33.3%	95.0%	5.0%	94.1%	5.9%	90.5%	9.5%
Enosburg Elem.	82.4%	17.6%	94.7%	5.3%	81.0%	19.0%	91.3%	8.7%
Richford Sec.	88.0%	12.0%	100%	0.0%	94.4%	5.6%	100.0%	0%
Enosburg Sec.	91.2%	8.8%	93.1%	6.9%	95.2%	4.8%	95.7%	4.3%

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
5. Shaping the Curriculum								
Richford Elem.	83.3%	16.7%	100%	0.0%	88.2%	11.8%	85.7%	14.3%
Enosburg Elem.	52.9%	47.1%	78.9%	21.1%	81.0%	19.0%	86.4%	13.6%
Richford Sec.	54.2%	45.8%	59.3%	40.7%	70.6%	29.4%	82.4%	17.6%
Enosburg Sec.	100.0%	0.0%	96.6%	3.4%	95.2%	4.8%	91.3%	8.7%
6. Selecting New Administration								
Richford Elem.	0.0%	100%	4.8%	95.2%	5.9%	94.1%	0.0%	100.0%
Enosburg Elem.	5.9%	94.1%	66.7%	33.3%	38.1%	61.9%	76.2%	23.8%
Richford Sec.	0.0%	100%	3.6%	96.4%	16.7%	83.3%	23.5%	76.5%
Enosburg Sec.	11.4%	88.6%	13.8%	86.2%	23.8%	76.2%	21.7%	78.3%

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
7. Evaluating Teacher Performance								
Richford Elem.	5.6%	94.4%	0.0%	100%	0.0%	100%	0.0%	100%
Enosburg Elem.	5.9%	94.1%	10.5%	89.5%	19.0%	81.0%	33.3%	66.7%
Richford Sec.	0.0%	100%	7.4%	92.6%	0.0%	100%	12.5%	87.5%
Enosburg Sec.	8.6%	91.4%	13.8%	86.2%	5.0%	95.0%	100%	0.0%
8. Designing In-Service and Staff Development Programs								
Richford Elem.	55.6%	44.4%	47.6%	52.4%	47.1%	52.9%	70.0%	30.0%
Enosburg Elem.	29.4%	70.6%	73.7%	26.3%	52.4%	47.6%	63.6%	36.4%
Richford Sec.	16.8%	84.0%	32.1%	67.9%	22.2%	77.8%	47.1%	52.9%
Enosburg Sec.	40.0%	60.0%	69.0%	31.0%	28.6%	71.4%	39.1%	60.9%

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
9. Setting Student Promotion & Retention Policies								
Richford Elem.	70.6%	29.4%	66.7%	33.3%	70.6%	29.4%	66.7%	33.3%
Enosburg Elem.	64.7%	35.3%	57.9%	42.1%	76.2%	23.8%	59.1%	40.9%
Richford Sec.	29.2%	70.8%	39.3%	60.7%	38.9%	61.1%	76.5%	23.5%
Enosburg Sec.	34.3%	65.7%	51.7%	48.3%	33.3%	66.7%	26.1%	73.9%
10. Determining whether students are tracked by ability into special classes								
Richford Elem.	52.9%	47.1%	85.7%	14.3%	62.5%	37.5%	66.7%	33.3%
Enosburg Elem.	37.5%	62.5%	53%	47%	75.0%	25.0%	68.2%	31.8%
Richford Sec.	44.0%	56.0%	40.0%	60.0%	66.7%	33.3%	52.9%	47.1%
Enosburg Sec.	45.7%	54.3%	50.0%	50.0%	47.6%	52.4%	47.8%	52.2%

Questionnaire developed by the Carnegie Foundation for the Advancement of Teaching (1987).

Characteristics	Year I		Year II		Year III		Year IV	
	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.	Inv.	Not Inv.
9. Setting Student Promotion & Retention Policies								
Target Elem.	70.6%	29.4%	66.7%	33.3%	70.6%	29.4%	66.7%	33.3%
Contrast Elem.	64.7%	35.3%	57.9%	42.1%	76.2%	23.8%	59.1%	40.9%
Target Sec.	29.2%	70.8%	39.3%	60.7%	38.9%	61.1%	76.5%	23.5%
Contrast Sec.	34.3%	65.7%	51.7%	48.3%	33.3%	66.7%	26.1%	73.9%
10. Determining whether students are tracked by ability into special classes								
Target Elem.	52.9%	47.1%	85.7%	14.3%	62.5%	37.5%	66.7%	33.3%
Contrast Elem.	37.5%	62.5%	53%	47%	75.0%	25.0%	68.2%	31.8%
Target Sec.	44.0%	56.0%	40.0%	60.0%	66.7%	33.3%	52.9%	47.1%
Contrast Sec.	45.7%	54.3%	50.0%	50.0%	47.6%	52.4%	47.8%	52.2%

Questionnaire developed by the Carnegie Foundation for the Advancement of Teaching (1987).

Issues of leadership in both Richford elementary and secondary schools clearly affected some of the results; teachers were concerned that their "good ideas" could not be accomplished without sufficient support and interest from their administrators. School climate results from the Enosburg schools in the Fall, 1992, at the completion of the project, perhaps show most clearly the effect of the process on schools where leadership issues are less important to teachers. The significant increases ($p \leq 0.05$) in both Enosburg schools in the areas of safe and orderly environment, instructional leadership, high expectations for all students, and in the Enosburg secondary school in the areas of clear school mission, monitoring of student progress, involvement in decision-making and teacher growth and renewal, show teachers have gained a stronger voice in school decision-making in their schools.

4. **Resulted in few signicant changes in student and parent opinions regarding their schools.** Tables 17 and 18 describe the results of student and parent opinion surveys about their schools over the four years of the project. There was overall a downward trend in results for students, though students' familiarity with the survey by the fourth project year may have been a contributing factor. The project, however, was intended to alter the attitudes, beliefs and practices of teachers regarding inclusion. It may have been too early, certainly in the Enosburg schools but also in the Richford schools who completed the process in the second project year, to see significant changes in

Table 17

Student Opinion Survey

	Year I					Year II					Year III					Year IV				
1. Grade you would give school	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**
Richford Elem.	50% (102)	40%	7%	0%	3%	38% (100)	48%	6%	3%	5%	34% (113)	35%	10%	9%	12%	26% (109)	28%	24%	15%	7
Enosburg Elem.	33% (110)	42%	21%	3%	1%	32% (106)	53%	11%	2%	2%	30% (100)	36%	16%	7%	11%	34% (111)	37%	19%	8%	2
Richford Sec.	9% (231)	36%	32%	16%	7%	7% (240)	39%	35%	9%	10%	5% (232)	47%	33%	11%	4%	9% (242)	50%	28%	11%	2
Enosburg Sec.	2% (328)	31%	43%	18%	6%	3% (323)	42%	37%	14%	4%	9% (283)	35%	37%	12%	7%	7% (309)	40%	36%	11%	6
2. Do most teachers enjoy teaching?	**Yes**	**Maybe**	**No**			**Yes**	**Maybe**	**No**			**Yes**	**Maybe**	**No**			**Yes**	**Maybe**	**No**		
Richford Elem.	72.5%	26.5%	1.0%			61.0%	34.0%	5.0%			64.9%	31.6%	3.5%			47.1%	44.2%	8.7%		
Enosburg Elem.	72.7%	26.4%	0.9%			69.8%	29.3%	0.9%			68.7%	27.3%	4.0%			68.5%	31.5%	0.0%		
Richford Sec.	49.1%	43.5%	7.4%			45.8%	47.1%	7.1%			55.6%	38.8%	5.6%			55.4%	38.8%	5.8%		
Enosburg Sec.	51.1%	43.4%	5.5%			54.4%	40.0%	5.6%			54.4%	40.3%	5.3%			54.0%	38.6%	7.4%		

	Year I			Year II			Year III			Year IV		
3. Is teaching an important job?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	83.3%	14.7%	2.0%	80.0%	13.0%	7.0%	76.3%	15.8%	7.9%	67.0%	26.2%	6.8%
Enosburg Elem.	86.4%	13.6%	0.0%	86.8%	12.3%	0.9%	79.8%	9.1%	11.1%	79.8%	16.5%	3.7%
Richford Sec.	83.1%	12.6%	4.3%	78.7%	16.3%	5.0%	79.8%	15.9%	4.3%	83.5%	13.2%	3.3%
Enosburg Sec.	83.2%	14.4%	2.4%	80.4%	13.1%	6.5%	84.4%	11.3%	4.3%	80.9%	15.2%	3.9%
4. Do you get the help you need to do your school work?												
Richford Elem.	76.5%	19.6%	3.9%	65.0%	22.0%	13.0%	61.1%	24.7%	14.2%	53.3%	34.3%	12.4%
Enosburg Elem.	80.0%	15.5%	4.5%	76.4%	17.9%	5.7%	62.6%	29.3%	8.1%	69.4%	29.7%	0.9%
Richford Sec.	60.0%	29.1%	10.9%	62.5%	28.3%	9.2%	65.1%	28.9%	6.0%	51.5%	40.2%	8.3%
Enosburg Sec.	52.2%	34.0%	13.8%	49.1%	35.3%	15.6%	51.4%	38.7%	9.9%	45.6%	40.8%	13.6%

	Year I			Year II			Year III			Year IV		
5. Do students help each other to learn?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	50.0%	37.3%	12.7%	28.0%	33.0%	39.0%	37.7%	43.9%	18.4%	42.2%	47.1%	10.7%
Enosburg Elem.	44.6%	40.9%	14.5%	41.0%	47.6%	11.4%	35.4%	51.5%	13.1%	40.5%	47.8%	11.7%
Richford Sec.	50.2%	36.8%	13.0%	51.3%	40.0%	8.7%	54.3%	34.9%	10.8%	48.1%	40.7%	11.2%
Enosburg Sec.	43.9%	36.8%	19.3%	42.1%	38.2%	19.7%	42.0%	39.9%	18.1%	39.8%	39.8%	20.4%
6. Do students behave during classtime?												
Richford Elem.	17.6%	57.9%	24.5%	28.0%	33.0%	39.0%	17.5%	56.2%	26.3%	13.0%	55.0%	32.0%
Enosburg Elem.	33.6%	49.1%	17.3%	19.8%	58.5%	21.7%	23.4%	48.0%	28.6%	15.3%	55.9%	28.8%
Richford Sec.	24.9%	50.2%	24.9%	19.2%	55.6%	25.2%	27.2%	50.4%	22.4%	22.0%	53.1%	24.9%
Enosburg Sec.	19.6%	57.1%	23.3%	24.3%	46.1%	29.6%	19.1%	52.5%	28.4%	12.7%	54.7%	32.6%

	Year I			Year II			Year III			Year IV		
7. In school, do you feel you belong?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	76.5%	15.7%	7.8%	58.0%	33.0%	9.0%	67.5%	19.3%	13.2%	72.8%	15.5%	11.7%
Enosburg Elem.	76.4%	19.1%	4.5%	68.8%	20.8%	10.4%	66.7%	18.2%	15.1%	67.3%	22.7%	10.0%
Richford Sec.	68.3%	21.7%	10.0%	68.2%	21.8%	10.0%	71.9%	20.3%	7.8%	71.5%	21.9%	6.6%
Enosburg Sec.	62.1%	25.1%	12.8%	62.4%	22.9%	14.7%	60.4%	27.6%	12.0%	64.8%	22.5%	12.7%
8. Do adults in the school care about what students think?												
Richford Elem.	63.3%	23.8%	12.9%	44.0%	42.0%	14.0%	54.4%	29.8%	15.8%	42.7%	39.8%	17.5%
Enosburg Elem.	64.5%	29.1%	6.4%	60.4%	34.0%	5.6%	57.6%	31.3%	11.1%	64.9%	29.7%	5.4%
Richford Sec.	37.0%	37.0%	26.0%	36.7%	39.6%	23.7%	49.4%	36.4%	14.2%	45.9%	40.9%	13.2%
Enosburg Sec.	27.9%	44.5%	27.6%	35.0%	39.4%	25.6%	36.9%	44.0%	19.1%	31.4%	47.9%	20.7%

	Year I			Year II			Year III			Year IV		
9. Is what you are learning important to you?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	74.5%	20.6%	4.9%	68.0%	25.0%	7.0%	71.1%	22.8%	6.1%	68.6%	21.9%	9.5%
Enosburg Elem.	85.5%	12.7%	1.8%	84.0%	13.2%	2.8%	61.2%	27.6%	11.2%	73.9%	22.5%	3.6%
Richford Sec.	51.1%	35.0%	13.9%	42.5%	45.4%	12.1%	53.7%	39.0%	7.3%	52.1%	38.4%	9.5%
Enosburg Sec.	48.3%	36.1%	15.6%	53.3%	30.5%	16.2%	56.1%	30.7%	13.2%	47.7%	38.6%	13.7%

Questionnaire developed by the Model School Development Project, University of Vermont, 1988.

Table 18
Parent Opinion Survey

	Year I					Year II					Year III					Year IV				
1. Grade you would give school	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**	**A**	**B**	**C**	**D**	**E**
Richford Elem.	41% (145-92%)	51%	7%	0%	1%	38% (119-79%)	56%	5%	1%	0%	42% (131-78%)	47%	8%	2%	1%	34% (109-72%)	51%	13%	2%	0
Enosburg Elem.	32% (142-82%)	51%	14%	2%	1%	42% (121-72%)	46%	11%	0%	1%	42% (89-52%)	49%	9%	0%	0%	33% (109-63%)	50%	14%	1%	2
Richford Sec.	6% (54-30%)	65%	14%	12%	3%	14% (44-24%)	53%	26%	0%	7%	7% (62-34%)	56%	26%	8%	3%	11% (69-35%)	66%	22%	1%	0
Enosburg Sec.	10% (107-34%)	46%	39%	4%	1%	14% (82-29%)	51%	30%	4%	1%	10% (69-24%)	46%	38%	6%	0%	6% (68-23%)	52%	32%	8%	2

2. Does the school tell you enough?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	75.4%	14.8%	9.8%	73.7%	17.8%	8.5%	76.9%	14.6%	8.5%	76.6%	12.1%	11.3%
Enosburg Elem.	88.9%	7.4%	3.7%	78.6%	12.0%	9.4%	79.4%	10.3%	10.3%	66.7%	16.7%	16.7%
Richford Sec.	49.1%	28.3%	22.6%	56.8%	22.7%	20.5%	42.6%	24.6%	32.8%	40.6%	21.7%	37.7%
Enosburg Sec.	42.7%	22.3%	35.0%	52.6%	15.3%	32.1%	49.3%	18.8%	31.9%	40.3%	19.4%	40.3%

	Year I			Year II			Year III			Year IV		
3. Do you feel welcome?	Yes	Maybe	No	Yes	Maybe	No	Yes	Maybe	No	Yes	Maybe	No
Richford Elem.	97.2%	2.8%	0.0%	95.0%	5.0%	0.0%	94.6%	3.9%	1.5%	95.4%	3.7%	0.9%
Enosburg Elem.	95.7%	4.3%	0.0%	96.7%	3.3%	0.0%	89.7%	10.3%	0.0%	88.9%	7.4%	3.7%
Richford Sec.	77.8%	11.1%	11.1%	88.7%	4.5%	6.8%	74.2%	11.3%	14.5%	86.4%	12.1%	1.5%
Enosburg Sec.	84.8%	10.5%	4.8%	82.5%	11.3%	6.2%	80.9%	10.3%	8.8%	72.7%	19.7%	7.6%
4. Are you happy with the teachers?												
Richford Elem.	81.7%	16.2%	2.1%	87.5%	11.6%	0.9%	86.9%	10.0%	3.1%	81.9%	14.3%	3.8%
Enosburg Elem.	86.7%	11.9%	1.5%	90.4%	9.6%	0.0%	91.8%	7.1%	1.1%	83.8%	14.3%	1.9%
Richford Sec.	53.1%	34.7%	12.2%	57.1%	28.6%	14.3%	51.7%	39.7%	8.6%	50.0%	39.7%	10.3%
Enosburg Sec.	49.0%	30.6%	20.4%	62.0%	31.0%	7.0%	40.0%	46.2%	13.8%	44.9%	37.9%	17.2%
5. Are you actively involved?												
Richford Elem.	26.4%	13.6%	60.0%	28.4%	21.6%	50.0%	36.7%	21.9%	41.4%	34.6%	18.3%	47.1%
Enosburg Elem.	39.4%	16.1%	44.5%	43.4%	15.0%	41.6%	38.4%	18.6%	43.0%	49.1%	21.3%	29.6%
Richford Sec.	27.5%	27.4%	45.1%	39.5%	18.6%	41.9%	27.1%	11.9%	61.0%	23.5%	20.6%	55.9%
Enosburg Sec.	25.0%	13.5%	61.5%	27.8%	21.5%	50.7%	33.8%	14.7%	51.5%	38.5%	18.5%	43.0%

	Year I			Year II			Year III			Year IV		
6. Does the school give children what's needed to learn?	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**	**Yes**	**Maybe**	**No**
Richford Elem.	84.4%	13.5%	2.1%	92.3%	6.0%	1.7%	89.3%	9.2%	1.5%	97.2%	2.8%	0.0%
Enosburg Elem.	82.4%	16.2%	1.4%	88.9%	7.7%	3.4%	89.7%	10.3%	0.0%	99.0%	0.0%	1.0%
Richford Sec.	66.7%	15.7%	17.6%	69.8%	18.6%	11.6%	45.8%	37.3%	16.9%	94.2%	0.0%	5.8%
Enosburg Sec.	57.8%	26.5%	15.7%	67.5%	20.8%	11.7%	58.5%	23.1%	18.4%	97.1%	0.0%	2.9%

Notes:

Questionnaire developed by The Model School Development Project, University of Vermont, 1988.
Response rates in actual responses and as a percent of total of parents contacted are in parenthesis.

the opinions of other community members such as parents and students.

Individual Professional Development. In addition to providing teachers with a vehicle for making informed decisions about instruction for all students in a school, the problem-solving-planning process encouraged faculty members to develop peer leadership skills, to observe and learn from each other, to develop socialization skills, appreciating the abilities and perspectives of both special and general education professionals, and to understand teachers can be at varying stages of their professional development. The problem-solving-planning process:

5. **Developed peer leadership skills**, particularly among teachers in the Richford elementary school. Peer leaders, half of whom were special educators or who had special education backgrounds, gradually assumed the responsibility for implementing school action goals. As the paper "Involving Special Educators in School Reform: The Development of Peer Leadership" (Appendix B) reports, many of the qualities that proved most effective in the peer leaders were those the special educators shared. This increasing socialization among special and general educators, as special educators became closely associated with the action goals of improving the school for all students, positively affected the interest of teachers in adopting inclusionary practices. Peer leadership skills also compensated for concerns regarding the overall leadership of the schools. Though teachers were concerned about leadership issues

in all the schools, the problem-solving-planning process provided an opportunity for participants to develop trusted professional relationships with their colleagues. These colleagues proved sources of support when difficult situations arose.

6. **Led to increased sharing of professional expertise and teaming in instruction.** Teachers in all the project schools were given the opportunity to see each other as experts in their classrooms. Some of their action goals led to observations of colleagues providing instruction in their classrooms, collaboration in planning and teaching lessons, strengthening the ability of instructional support teams to address the problems of students, and long-term planning for how to improve their schools. The new consulting teacher approach to special education services in the Richford elementary school also has increased the instructional interactions among special and general educators and the types of inclusionary practices and accomodations made for all students.

Inclusionary Practices. The problem-solving-planning process focused on two types of inclusionary practices: teacher-assisted and student-assisted strategies. As the three case studies suggest, the process:

7. **Increased the use of a variety of inclusionary practices in the project schools.** Practices included increased collaborative teaming, adoption of a teacher consultation model, staff development training in specific instructional strategies, increased peer instruction, collaborative grouping and

heterogeneous grouping, direct instructional strategies such as TAI, CIRC and Higher Order Thinking Skills, and multiage education. Taken as a whole, there are more inclusionary practices integrated into the schools than at the beginning of the project.

8. **Has not yet significantly affected student performance.** Insufficient time elapsed, however, from the adoption of these practices to the end of the project for associated outcomes to be reflected in student achievement measures. As Tables 19 and 20 suggest, the achievement scores as measured by CTBS and BASS changed little during the course of the project. And while child count data, provided in Table 7, shows some changes in the numbers of students on IEP's, it is difficult to say whether the new Vermont legislation regarding special education services is responsible or whether our project was indeed having an effect on the numbers of students referred for certain disabilities. Tables 21 and 22 indicate that there were also no significant overall changes in the self-concept for students with and without specific learning disabilities, and in the classroom observations taken of special education and general education children. It is interesting to note, however, that students' ratings of their self-concept did not vary significantly by status, nor did the types of instructional practices being used with special education children in the regular classroom. And teacher interviews and participant observations reported the increased adoption of inclusionary practices in the schools, though

Table 19

CTBS Achievement Scores for Special and General Education Students

	Special Ed. Students					General Ed. Students				
		Reading Comprehension		Math Concepts & Appl.			Reading Comprehension		Math Concepts & Appl.	
	N	Mean	S.D.	Mean	S.D.	N	Mean	S.D.	Mean	S.D.
Rich. Elem.										
Yr. 1	40	17.2	14.0	17.6	14.3	179	51.7	25.5	48.2	25.2
Yr. 2	71	24.5	18.4	26.0	20.9	145	54.8	25.5	54.8	24.9
Yr. 3	38	13.4	11.9	16.4	16.0	172	47.9	27.0	41.1	25.4
Yr. 4	34	16.2	19.1	12.5	23.3	158	45.1	26.9	39.2	24.5
Rich. Sec.										
Yr. 1	27	17.4	15.5	23.2	15.1	206	47.6	28.9	52.5	28.0
Yr. 2	25	16.3	14.4	27.2	15.4	215	48.2	28.0	55.9	25.8
Yr. 3	28	16.3	13.8	17.2	13.1	170	50.9	27.0	48.8	27.4
Yr. 4	23	19.2	15.5	19.3	18.3	127	51.6	28.1	45.3	28.6
Enos. Elem.										
Yr. 1	33	28.0	22.8	33.8	24.9	216	57.8	25.4	56.7	25.2
Yr. 2	31	24.0	26.6	22.1	19.3	217	56.7	27.7	55.4	27.5
Yr. 3	34	33.7	27.3	23.5	21.8	218	49.7	26.1	40.1	26.2
Yr. 4	19	24.3	21.6	13.5	19.1	213	45.0	26.5	37.4	26.3
Enos. Sec.										
Yr. 1	33	30.5	24.5	35.0	26.3	314	48.0	28.8	50.9	25.5
Yr. 2	39	26.6	21.8	28.4	20.8	283	45.9	29.0	51.5	25.7
Yr. 3	33	22.4	19.6	24.3	20.5	230	54.8	26.9	54.0	25.2
Yr. 4	16	28.1	24.9	21.4	20.1	181	57.9	24.9	55.9	25.8

Notes: Scores reported are national percentile scores. Special ed. students who took the CTBS were primarily those with specific learning disabilities and speech and language impairments. Sample sizes vary in Yr. 3 because 12th graders no longer took the test, and in Yr. 4, 9th graders also did not take the test.

Table 20

Gains in BASS Scores from Fall to Spring

	N	Special Education Students				N	General Education Students			
		Reading		Math			Reading		Math	
		Mean	SD	Mean	SD		Mean	SD	Mean	SD
Richford Elem.										
Year 2	8	1.4	1.5	1.0	2.9	32	2.3	2.4	4.0	4.2
Year 3	8	0.3	2.5	-0.5	3.3	48	0.7	2.5	3.2	3.3
Year 4	13	0.6	2.1	0.9	2.9	32	3.0	2.2	4.1	3.2
Enosburg Elem.										
Year 2	7	0.1	0.9	0.6	2.0	37	2.4	2.2	5.3	4.3
Year 3	7	1.2	1.2	1.7	3.8	52	2.0	2.1	0.9	3.4
Year 4	12	0.3	1.8	1.6	3.6	47	1.9	2.3	3.1	4.3

Notes: In each school, tests were administered in 2 second-grade classes, 1 fourth grade class, and 2 fifth grade classes. Gains in numbers of questions answered correctly from fall to spring are collapsed across grades due to small special education sample sizes.

Table 21

Student Self-Concept by Status

	Richford Elementary						Richford Secondary						Enosburg Elementary						Enosbury Secondary					
	Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD
Gen. Self-Worth																								
Yr. 1	17	3.0	0.7	125	3.3	0.7	18	2.9	0.6	203	2.5	0.8	11	3.1	0.5	143	3.1	0.7	22	2.5	0.8	300	2.4	0.8
Yr. 2	22	2.8	0.7	120	3.2	0.6	19	2.3	0.6	212	2.5	0.7	14	3.0	0.7	148	3.1	0.7	25	2.7	0.9	279	2.5	0.8
Yr. 3	31	2.4	0.5	125	2.4	0.4	23	2.6	0.3	190	2.6	0.3	19	2.4	0.6	142	2.4	0.3	31	2.5	0.4	235	2.6	0.3
Yr. 4	20	2.4	0.5	129	2.4	0.4	28	2.8	0.3	209	2.6	0.3	9	1.8	0.3	152	2.4	0.4	27	2.7	0.3	273	2.6	0.3
Academic Competence																								
Yr. 1	17	2.5	0.5	125	2.9	0.7	18	2.6	0.6	203	2.2	0.7	11	2.3	0.3	143	2.8	0.7	22	2.9	0.7	300	2.4	0.7
Yr. 2	22	2.7	0.7	120	2.7	1.6	19	2.3	0.5	212	2.3	0.7	14	2.6	0.7	148	2.9	0.8	25	2.4	0.7	279	2.4	0.7
Yr. 3	31	2.3	0.5	125	2.3	0.4	23	2.5	0.3	190	2.5	0.4	19	2.3	0.5	142	2.4	0.3	31	2.4	0.5	235	2.4	0.3
Yr. 4	20	2.4	0.4	129	2.4	0.3	28	2.5	0.4	209	2.5	0.3	9	2.1	0.1	152	2.3	0.4	27	2.6	0.4	273	2.5	0.3

	Richford Elementary						Richford Secondary						Enosburg Elementary						Enosbury Secondary					
	Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD
Social Acceptance by Peers																								
Yr. 1	17	2.6	0.8	125	3.0	0.7	18	2.9	0.6	203	3.2	0.5	11	2.5	0.6	143	2.8	0.8	22	3.2	0.7	300	3.3	0.5
Yr. 2	22	2.8	0.7	120	3.0	0.7	19	3.2	0.5	212	3.2	0.6	14	2.6	0.8	148	2.9	0.8	25	3.3	0.4	279	3.3	0.5
Yr. 3	31	2.3	0.5	125	2.4	0.4	23	2.1	0.4	190	2.1	0.3	19	2.4	0.5	142	2.5	0.3	31	2.0	0.4	235	2.2	0.4
Yr. 4	20	2.4	0.4	129	2.4	0.4	28	2.1	0.3	209	2.2	0.4	9	2.2	0.5	152	2.4	0.4	27	2.1	0.4	273	2.2	0.3
Athletic Competence																								
Yr. 1	17	2.7	0.7	125	2.9	0.8	18	2.4	0.7	203	2.5	0.6	11	2.9	0.6	143	2.7	0.7	22	2.5	0.7	300	2.6	0.6
Yr. 2	22	2.8	0.8	120	2.9	0.8	19	2.2	0.6	212	2.4	0.7	14	2.7	0.8	148	2.8	0.8	25	2.5	0.7	279	2.6	0.7
Yr. 3	31	2.4	0.4	125	2.5	0.4	23	2.7	0.5	190	2.6	0.4	19	2.5	0.3	142	2.6	0.3	31	2.4	0.5	235	2.6	0.4
Yr. 4	20	2.5	0.4	129	2.6	0.3	28	2.6	0.6	209	2.6	0.4	9	2.3	0.5	152	2.5	0.4	27	2.6	0.4	273	2.6	0.4

	Richford Elementary						Richford Secondary						Enosburg Elementary						Enosbury Secondary					
	Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD	N	Mn	SD
Physical Appearance																								
Yr. 1	17	2.7	0.9	125	2.9	0.8	18	2.3	0.5	203	2.6	0.6	11	3.0	0.5	143	2.8	0.8	22	2.6	0.7	300	2.7	0.6
Yr. 2	22	2.5	0.8	120	2.5	1.4	19	2.3	0.6	212	2.7	0.6	14	2.8	0.8	148	2.8	0.8	25	2.6	0.7	279	2.7	0.6
Yr. 3	31	2.5	0.5	125	2.5	0.4	23	2.3	0.3	190	2.3	0.3	19	2.4	0.4	142	2.5	0.4	31	2.2	0.4	235	2.2	0.3
Yr. 4	20	2.5	0.4	129	2.5	0.4	28	2.2	0.4	209	2.3	0.3	9	2.1	0.3	152	2.5	0.4	27	2.1	0.4	273	2.2	0.3
Behavioral Conduct																								
Yr. 1	17	2.8	0.7	125	3.0	0.6	18	2.4	0.6	203	2.7	0.7	11	2.8	0.6	143	3.0	0.7	22	2.4	0.5	300	3.0	0.7
Yr. 2	22	2.9	0.7	120	3.1	0.7	19	2.1	0.6	212	2.7	0.7	14	2.7	0.9	148	3.0	0.7	25	2.2	0.6	279	2.9	0.6
Yr. 3	31	2.7	0.4	125	2.4	0.4	23	2.4	0.3	190	2.5	0.3	19	2.4	0.4	142	2.5	0.3	31	2.4	0.5	235	2.5	0.3
Yr. 4	20	2.2	0.3	129	2.4	0.3	28	2.5	0.3	209	2.3	0.3	9	2.4	0.4	152	2.4	0.3	27	2.3	0.4	273	2.4	0.3

Notes: Grades 3-12 participated in this survey. The Harter Self-Perception Profile for Children was administered in Grades 3-6; the related Harter Self-Perception Profile for Adolescents was administered in Grades 7-12. A four-point Likert scale was used, with 4.0 as high. Only scores for students with specific learning disabilities are reported under special education students.

Table 22a

CISSAR Classroom Observations by Status

Percent of Time In	Richford Elementary School						Richford Secondary School					
	Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Academic Activity												
Year 1	9	96.3	21.8	10	91.7	26.3	11	74.2	22.7	11	81.8	40.4
Year 2	7	100	11.1	7	100	0.0	11	95.5	10.8	11	93.9	15.4
Year 3	5	63.3	50.6	5	83.3	37.3	7	100	0.0	7	100	0.0
Year 4	15	100	0.0	15	97.8	8.6	18	100	0.0	8	100	0.0
Seat Work												
Year 1	9	68.5	42.9	10	76.7	41.0	11	66.7	41.5	11	69.7	40.0
Year 2	7	71.4	48.8	7	66.7	47.1	11	74.2	38.3	11	59.1	49.1
Year 3	5	81.2	37.5	5	100	0.0	7	66.7	51.6	7	66.7	51.6
Year 4	15	74.4	39.3	15	77.8	41.2	18	59.3	45.5	8	58.3	45.5
Whole Group Work												
Year 1	9	100	0.0	10	90.0	24.3	11	90.9	30.2	11	92.4	25.1
Year 2	7	85.7	0.0	7	95.2	31.6	11	90.9	30.2	11	87.9	28.0
Year 3	5	100	0.0	5	100	0.0	7	76.2	41.8	7	85.7	37.8
Year 4	15	80.0	42.2	15	91.7	28.9	18	88.5	27.7	8	84.4	35.2

Percent of Time In	Richford Elementary School						Richford Secondary School					
	Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Formal Teaching Position												
Year 1	9	42.6	50.2	10	38.3	48.6	11	52.3	43.1	11	58.6	40.8
Year 2	7	48.4	34.2	7	47.2	38.6	11	60.8	31.9	7	73.7	39.1
Year 3	5	47.6	47.9	5	58.3	53.4	7	86.6	28.8	7	77.8	36.8
Year 4	15	42.4	40.1	15	34.1	43.5	18	59.3	39.0	8	56.3	41.0
Direct Teacher Instruction												
Year 1	9	84.0	20.0	10	84.4	26.2	11	76.5	37.8	11	75.3	32.1
Year 2	7	98.0	5.3	7	89.7	13.5	11	78.3	33.0	7	81.8	30.3
Year 3	5	51.7	37.3	5	51.7	42.6	7	91.3	14.0	7	98.0	3.5
Year 4	15	70.6	34.4	15	64.3	38.0	18	75.2	33.9	8	78.2	32.2
Academic Behavior												
Year 1	9	78.4	16.5	10	79.5	13.4	11	77.0	29.0	11	79.8	25.7
Year 2	7	81.4	17.7	7	77.4	14.1	11	84.3	15.5	7	91.5	10.4
Year 3	5	74.3	24.6	5	82.7	18.4	7	93.2	6.9	7	74.3	33.6
Year 4	15	90.0	22.3	15	96.5	4.8	18	83.6	25.5	8	86.3	24.1

Notes: Observational categories refer to 1) academic activity versus non-academic activity; 2) seat work versus time spent in teacher lecture or teacher-led discussion; 3) whole group work versus small group and individual work; 4) formal teaching position at the front of the class versus an informal position amongst students in the classroom; 5) direct teacher instruction versus non-academic discussions with students; and 6) appropriate academic student behavior versus inappropriate behavior or transitioning to a new activity or class.

Table 22b

CISSAR Classroom Observations by Status

Percent of Time In	Enosburg Elementary School						Enosburg Secondary School					
	Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Academic Activity												
Year 1	9	92.6	22.2	9	90.7	22.2	14	86.9	30.8	14	84.5	36.1
Year 2	12	87.5	20.3	11	95.4	7.8	12	95.8	10.4	12	97.2	9.6
Year 3	7	83.3	37.3	8	60.4	45.3	6	66.7	51.6	6	66.6	51.6
Year 4	15	100	0.0	15	100	0.0	20	100	0.0	20	100	0.0
Seat Work												
Year 1	9	61.1	44.9	9	77.8	36.3	14	82.1	36.1	14	73.8	42.2
Year 2	12	62.5	48.3	11	74.2	41.1	12	63.6	47.5	12	65.3	41.2
Year 3	7	83.3	40.8	8	83.3	40.8	6	71.1	39.2	6	66.7	51.6
Year 4	15	81.1	39.3	15	71.1	41.5	20	72.5	43.3	20	74.2	42.7
Whole Group Work												
Year 1	9	68.5	47.5	9	64.8	48.9	14	86.9	33.5	14	85.7	36.3
Year 2	12	77.8	41.0	11	71.2	46.0	12	91.7	28.9	12	77.8	41.0
Year 3	7	85.4	35.0	8	93.8	17.7	6	100	0.0	6	100	0.0
Year 4	15	68.0	47.3	15	91.7	28.9	20	82.4	39.3	20	90.6	27.2

Percent of Time In	Enosburg Elementary School						Enosburg Secondary School					
	Special Ed.			General Ed.			Special Ed.			General Ed.		
	N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
Formal Teaching Position												
Year 1	9	59.6	44.4	9	56.1	38.0	14	26.2	37.6	14	22.4	35.4
Year 2	12	33.1	42.6	11	57.3	47.6	12	36.3	41.0	12	30.8	40.2
Year 3	7	24.3	36.5	8	14.3	20.9	6	75.0	35.8	6	66.2	37.7
Year 4	15	65.9	46.6	15	68.9	46.2	20	48.2	46.1	20	52.4	45.6
Direct Teacher Instruction												
Year 1	9	86.4	21.1	9	89.2	22.6	14	84.7	23.9	14	88.1	26.8
Year 2	12	95.8	5.9	11	95.3	5.7	12	85.9	25.5	12	97.2	4.7
Year 3	7	56.9	33.1	8	65.6	33.0	6	85.6	40.4	6	62.9	36.2
Year 4	15	89.8	15.5	15	78.0	31.9	20	58.8	41.1	20	54.2	44.6
Academic Behavior												
Year 1	9	77.3	27.1	9	85.6	12.5	14	91.7	9.5	14	90.7	10.9
Year 2	12	53.3	29.3	11	85.8	12.2	12	88.2	13.0	12	82.6	17.5
Year 3	7	84.9	10.3	8	75.3	23.5	6	87.0	18.4	6	86.0	18.7
Year 4	15	92.7	8.1	15	83.2	21.8	20	84.0	28.0	20	87.4	23.7

Notes: Observational categories refer to 1) academic activity versus non-academic activity; 2) seat work versus time spent in teacher lecture or teacher-led discussion; 3) whole group work versus small group and individual work; 4) formal teaching position at the front of the class versus an informal position amongst students in the classroom; 5) direct teacher instruction versus non-academic discussions with students; and 6) appropriate academic student behavior versus inappropriate behavior or transitioning to a new activity or class.

continuing problems with students with serious emotional disturbance limited the effect some practices had on the whole classroom.

Shared Responsibility for Educating All Students. Perhaps the most important finding of the project is that a school model can make a difference in the adoption of inclusionary practices, yet the process necessarily takes a great deal of time. It is not a simple process to change the beliefs, attitudes and practices of teachers. They need time to explore, select, feel comfortable with and act before they can embrace change. They need support from both administrators and colleagues to alter what they know best and take risks in adopting what they know less about.

What we have learned, however, is that special educators and general educators can become particularly effective partners in changing how schools work with children. They bring to each other different skills, areas of knowledge, and interests; together they can help and support each other to change. It is not easy, however, to break down the barriers between special and general educators. The problem-solving-planning process is one way to do so. It brings these educators together on neutral territory, where each can be seen as an expert and a valued member of the school community. It allows each to have a voice in shaping change and ensuring the needs of all children are met as schools restructure to provide the best learning environments possible for all children.

RECOMMENDATIONS

Based on the success of the problem-solving-planning model in three school settings, several recommendations are offered to guide future model replication. Recommendations follow the main features of the model: school-wide change, individual professional development, and inclusionary practice.

School-wide change. It is recommended that the entire school staff in a given school (professional, administrative and support staff) participate fully in the problem-solving-planning process and that each individual's participation be valued equally. Regular meeting times, incentives, and a neutral facilitator are necessary to support the year-long process.

Although parents were not involved on a continuous basis in this school building model, it is strongly recommended that in subsequent school replications, parents of students with diverse needs be full participants in the problem-solving-planning process.

Individual Professional Development. It is recommended that model participants in a given school be given continuing and regular opportunities to support one another's professional development, to share professional expertise, and to collaborate in their professional practice.

As individual professional development occurs, it is necessary to acknowledge the emergence of teacher-leaders and to provide these teacher leaders with the encouragement, assistance and incentives they need to bring about school change. It is particularly important to be aware of the potential of both

disciplines, special and general education, as sources of peer leadership.

Inclusionary Practices. It is recommended that all teachers in a given school have direct access to the research literature related to effective practices documented in both special and general education disciplines. Further, it is recommended that implementation of inclusionary practices selected by teachers for adoption and adaption requires on-site assistance by expert practitioners.

Additionally, teachers need to be provided the evaluation systems, i.e. authentic performance assessment, that will enable them to make data-based decisions regarding adoptions and adaptations of inclusionary practices for students with diverse abilities.

Shared Responsibility for Education of All Students. It is recommended that the expertise and experience of special educators and general educators alike be acknowledged and valued as necessary to constructing the interconnected web of inclusionary practices that can effectively meet the needs of all students in their particular school.

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MODEL SCHOOL DEVELOPMENT PROJECT

Please read the question* and circle the number that corresponds to the answer that best expresses your opinion.

In your school, how involved are teachers in each of the following:

		Actually			
		Not At All Involved			Very Involved
a.	selecting new teachers	1	2	3	4
b.	setting formal school standards for student behavior	1	2	3	4
c.	deciding how the school budget is spent	1	2	3	4
d.	choosing which textbooks and instructional materials are used	1	2	3	4
e.	shaping the curriculum	1	2	3	4
f.	selecting new administrators	1	2	3	4
g.	evaluating teacher performance	1	2	3	4
h.	designing staff development/ in-service programs	1	2	3	4
i.	setting student promotion and retention policies	1	2	3	4
j.	determining whether students are tracked by ability into special classes	1	2	3	4

* From a teacher questionnaire distributed in 1987 by The Carnegie Foundation for the Advancement of Teaching. The results of that nationwide sample of teachers will be reported in Condition of Teaching: A State By State Analysis (in press.)

Model School Development Project
Franklin Northeast Supervisory Union and the
University of Vermont
Enosburg Falls Elementary School

What grade would you give this school? A B C D F

Does this school tell you enough about what's going on?

Yes	No	Maybe

Do you feel welcome at this school?

Yes	No	Maybe

Are you happy with the teachers in this school?

Yes	No	Maybe

Are you actively involved in this school?

Yes	No	Maybe

Do you have children in this school?

Yes	No

What grades? _____

Does this school give your child(ren) what he or she needs to learn?

Yes	No	Maybe

The things I like about this school are:

The things I don't like about this school are:

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STUDENT SURVEY

DON'T SIGN YOUR NAME!

GRADE _____ **SEX:** ____**Male** ____ **Female** **DATE** _____

CIRCLE THE GRADE YOU WOULD GIVE THIS SCHOOL..... **A** **B** **C** **D** **F**

FOR EACH QUESTION BELOW, PLEASE CIRCLE ONLY ONE ANSWER.

1) DO YOU THINK THAT MOST TEACHERS IN THIS SCHOOL ENJOY TEACHING? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

2) DO YOU THINK THAT TEACHING IS AN IMPORTANT JOB? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

3) DO YOU GET THE HELP YOU NEED TO DO YOUR SCHOOL WORK? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

4) DO STUDENTS WORK TOGETHER TO HELP EACH OTHER LEARN? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

5) DO STUDENTS BEHAVE DURING CLASSTIME? .... **MOSTLY YES** **MAYBE** **MOSTLY NO**

6) IN YOUR SCHOOL, DO YOU FEEL THAT YOU BELONG? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

7) DO YOU THINK THE ADULTS IN THIS SCHOOL CARE ABOUT WHAT STUDENTS THINK? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

8) IS WHAT YOU ARE LEARNING IN YOUR CLASSES IMPORTANT TO YOU? ..... **MOSTLY YES** **MAYBE** **MOSTLY NO**

WHAT I LIKE ABOUT THIS SCHOOL:

_____

_____

_____

_____

_____

WHAT I DON'T LIKE ABOUT THIS SCHOOL:

_____

_____

_____

_____

_____

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APPENDIX A:

Peer Leadership

Self-Rating Survey

PEER LEADERSHIP SKILLS

Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
1. Interpersonal Base. Relating to and directing others.	Very open person; nice manner, is able to deal with staff; knows when to stroke, when to hold back, when to assert; knows "which buttons to push"; can talk to anyone.			
2. Group Functioning. Understanding group dynamics, able to facilitate team work.	Has ability to get a group moving; good group facilitator, lets discussion flow.			
3. Training/Doing Workshops. Directing instruction, teaching adults in systematic way.	Gave training on how to implement goals; prepares a great deal and enjoys it; has the right chemistry and can impart knowledge at the peer level.			
4. Education General. (Master Teacher) Wide educational experience, able to impart skills to others.	Excellent teaching skills; has done staff development with teachers; was always assisting, supporting, being resource person to teachers.			
5. Educational Content. Knowledge of school subject matter.	Demonstrating expertise in a subject area; knows a great deal about teaching; what she doesn't know she finds out.			
6. Administrative/Organizational. Defining and structuring work, activities, time.	Highly organized, has everything prepared in advance; could take an idea and turn it into a program; good at prioritizing, scheduling; knows how to get things up.			
7. Initiative-Taking. Starting or pushing activities, moving directly toward action.	Assertive, clear sense of what he wanted to do; ability to poke and prod where needed to get things done.			

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Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
8. Trust/Rapport-Building. Developing a sense of safety, openness, reduced threat on part of others; good relationship-building.	Gained confidence of staff; a skilled assessor (knows how to get people to ask for help); did not threaten staff; was open and understanding.			
9. Support. Providing nurturing relationship, positive effective relationship.	A certain compassion for others; always patient, never critical, very enthusiastic.			
10. Confrontation. Direct expression of negative information without generating negative affect.	Can challenge in a positive way; will lay it on the line about what works and what won't; is talkative and factual; can point out things and get away with being blunt; able to tell people they were wrong, and they accept it.			
11. Conflict Mediation. Resolving or improving situations where multiple incompatible interests are in play.	Able to mediate people to soften their attitudes; can handle people who are terribly angry, unreasonable; keeps cool.			
12. Collaboration. Creating relationships where influence is mutually shared.	Deals on same level we do, puts in his ideas; leads and directs us, but as peers; doesn't judge us or put us down; has ideas of her own, but flexible enough to maintain other teachers' way of doing things, too.			
13. Confidence-Building. Strengthening another's sense of efficacy, belief in self.	Makes all feel confident and competent; doesn't patronize; has a way of drawing out other teachers' ideas; makes people feel great about themselves; like a shot of adrenaline boosting your mind, ego talents, and professional expertise.			

Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
14. Diagnosing Individuals. Forming a valid picture of the needs/problems of an individual teacher or administrator as a basis for action.	Realizing that when a teacher says she has the worst class, she means "I need help"; has an ability to focus in on problems; picks up the real messages; sensitive, looks at teacher priorities first; knows when an off-hand joke is a signal for help.			
15. Diagnosing Organizations. Forming a valid picture of the needs/problems of the school organization as a basis for action.	Analyzes situation, recognizes problems, jumps ahead of where you are to where you want to go; anticipates problems the school is facing; helped us know where we should be going.			
16. Managing/Controlling. Orchestrating the improvement process; coordinating activities, time and people; direct influence on others.	Prepared materials and did the groundwork with principal and school board; is a task master and keeps the process going; makes people do things rather than doing them himself.			
17. Resource-Bringing. Locating and providing information, materials, practices, equipment useful to clients.	He uses his network to get us supplies; brings ideas that he has seen work elsewhere; has the newest research, methods, articles, and ideas, and adapts them for our needs.			
18. Demonstration. Modeling new behavior in classroom or meetings.	Willing to go into classrooms and take risks; modeling; showed the chair by his own behavior how to be more open.			

Adapted from Saul, E.B., Hiles, H.H., & Lieberman, A. (1990). ACT - Assisting change in education. Alexandria, VA: Association for Supervision and Curriculum Development.

APPENDIX B: Peer Leadership Peer Nominations

PEER LEADERSHIP SKILLS

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
1. Interpersonal Base, Relating to and directing others .	Very open person; nice manner, is able to deal with staff; knows when to stroke, when to hold back, when to support; knows "which buttons to push"; can talk to anyone.	1. _____ 2. _____ 3. _____
2. Group Functioning. Understanding group dynamics, able to facilitate team work.	Has ability to get a group moving; good group facilitator, lets discussion flow.	1. _____ 2. _____ 3. _____
3. Training/Being Turbobego. Directing instruction, teaching skills in systematic way.	Gave training on how to implement goals; prepares a great deal and enjoys it; has the right chemistry and can impart knowledge at the peer level.	1. _____ 2. _____ 3. _____
4. Education General. (Master Teacher) Wide educational experience, able to impart skills to others.	Excellent teaching skills; has done staff development with teachers; was always assisting, supporting, being resource person to teachers.	1. _____ 2. _____ 3. _____
5. Educational Content. Knowledge of school subject matter.	Demonstrating expertise in a subject area; knows a great deal about teaching; what she doesn't know she finds out.	1. _____ 2. _____ 3. _____
6. Administrative/Organizational. Defining and structuring work, activities, time.	Highly organized, has everything prepared in advance; could take an idea and turn it into a program; good at prioritizing, scheduling; knows how to set things up.	1. _____ 2. _____ 3. _____
7. Initiative-Taking. Starting or pushing activities, moving directly toward action.	Assertive, clear sense of what he wanted to do; ability to poke and prod where needed to get things done.	1. _____ 2. _____ 3. _____
8. Trust/Rapport-Building. Developing a sense of safety, openness, reduced threat on part of others; good relationship-building.	Gained confidence of staff; a skilled endeavor (knows how to get people to ask for help); did not threaten staff; was open and understanding.	1. _____ 2. _____ 3. _____
9. Support. Providing nurturing relationship, positive effective relationship.	A certain compassion for others; always patient, never critical, very enthusiastic.	1. _____ 2. _____ 3. _____
10. Confrontation. Direct expression of negative information without generating negative effect	Can challenge in a positive way; will lay it on the line about what works and what won't; is talkative and factual; can point out things and get away with being blunt; able to tell people they were wrong, and they accept it.	1. _____ 2. _____ 3. _____

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
11. Conflict Mediation. Resolving or improving situations where multiple incompatible interests are in play.	Able to mediate people to soften their attitudes; can handle people who are terribly angry, unreasonable; keeps cool.	1. _____ 2. _____ 3. _____
12. Collaboration. Creating relationships where influence is mutually shared.	Deals on same level we do, puts in his ideas; leads and directs us, but as peers; doesn't judge us or put us down; has ideas of her own, but flexible enough to maintain other teachers' way of doing things, too.	1. _____ 2. _____ 3. _____
13. Confidence-Building. Strengthening another's sense of efficacy, belief in self.	Makes all feel confident and competent; doesn't patronize; has a way of drawing out other teachers' ideas; makes people feel great about themselves; like a shot of adrenaline boosting your mind, ego talents, and professional expertise.	1. _____ 2. _____ 3. _____
14. Diagnosing Individuals. Forming a valid picture of the needs/problems of an individual teacher or administrator as a basis for action.	Realizing that when a teacher says she has the worst class, she means "I need help"; has an ability to focus in on problems; picks up the real message; sensitive looks at teacher priorities first; knows when an off-hand joke is a signal for help.	1. _____ 2. _____ 3. _____
15. Diagnosing Organizations. Forming a valid picture of the needs/problems of the school organization as a basis for action.	Analyzes situation, recognizes problems, jumps ahead of where you are to where you want to go; anticipates problems the school is facing; helped us know where we should be going.	1. _____ 2. _____ 3. _____
16. Managing/Controlling. Orchestrating the improvement process; coordinating activities, time and people; direct influence on others.	Prepared materials and did the groundwork with principal and school board; is a task master and keeps the process going; makes people do things rather than doing them himself.	1. _____ 2. _____ 3. _____
17. Resource-Bringing. Locating and providing information, materials, practices, equipment useful to clients.	He uses his network to get us supplies; brings ideas that he has seen work elsewhere; has the newest research, methods, articles, and ideas, and adapts them for our needs.	1. _____ 2. _____ 3. _____
18. Demonstration. Modeling new behavior in classrooms or meetings.	Willing to go into classrooms and take risks; modeling; showed the chair by his own behavior how to be more open.	1. _____ 2. _____ 3. _____

Adapted from Saul, S.S., Niles, M.D., & Lieberman, A. (1990). ACE - Assisting Change in education. Alexandria, VA: Association for Supervision and Curriculum Development.

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Involving Special Educators in School Reform: The Development of Peer Leadership

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Paper presented at the conference of the Teacher Education Division of the Council For Exceptional Children, November 13, 1992, Cincinnati, OH.

The research reported in this paper was supported in part by Grant H023F80027 from the U.S. Department of Education. Points of view or opinions stated in this report do not necessarily represent official agency positions.

INVOLVING SPECIAL EDUCATORS IN SCHOOL REFORM: THE DEVELOPMENT OF PEER LEADERSHIP

Abstract

This study looks at the critical elements of peer leadership which were exhibited by special and general educators in a school where the twenty-one teachers had the opportunity to develop a common language and knowledge base, to understand one another's beliefs about the children they teach and to set common goals for their work.

A measure of peer leadership skills was developed, based on the work of Saxl, Miles, & Lieberman (1989), and given twice to the teachers, once for self-rating and once for peer nominations. An analysis of variance (ANOVA) indicated that the special educators were perceived by their peers as more skilled than the general educators in five areas. The results suggest that general education's search for "instructional leadership" must be expanded to include special educators, and may not require elaborate "career ladders" to generate that leadership.

Introduction

Two simultaneous waves of reform in the schools, one known as "restructuring" in general education and the other as the "regular education initiative" (REI) in special education, have left special educators wondering how to carry out their roles in a restructuring school. While few teachers will argue with the underlying values of either reform movement, the practice of reforms in classrooms tends to heighten the tensions between general and special educators. Their training, traditional roles, and socialization may have led to differences in beliefs, instructional practices, and assessment techniques (Pugach, 1992; Gartner & Lipsky, 1987), while the old organizational paradigm of schools has tended to separate general education and special education colleagues from one another by virtue of their professional specialization (Skrtic, 1987).

The language of restructuring tends to be broad and inclusive, with statements such as this from AMERICA 2000: "... every school in American will ensure that all students learn to use their minds well ..." (U.S. Department of Education, 1991, p. 62). However, there is concern expressed throughout the education community about the wisdom of serving all students with special needs in every general education classroom (Viadero, 1992; Davis & Maheady, 1991; Semmel, Abernathy, Butera, & Lesar, 1991). While general educators have been encouraged by reformers to

become more inclusive in their thinking, special educators have become aware that their system and their students will be seriously affected by general education reform (Ysseldyke, Thurlow, and Shriner, 1992; Carnine & Kameenui, 1990). As stated in an article focusing on special education's role in literacy and education,

> We believe that special education professionals must participate in AMERICA 2000 reforms. Otherwise, it is possible that, in the press to maximize achievement, special education and the students it serves will be eased out of the education mainstream (Sindelar, Watanabe, McCray, and Hornsby, 1992, p. 39).

Many teachers, having experienced the "top-down" wave of school reform by legislative and administrative mandate which characterized the early 1980's, believe that the current changes are driven by inadequate policy analysis and are happening too quickly to allow both students and teachers to acquire the essential skills.

> Ten years ago policy in our system dictated that special education remain a totally separate domain from regular eduction. Resources, both materials and personnel, were not to be shared. A principal attempting to administer special education classes

> within his building was informed most emphatically that children with disabilities fell under the aegis of the special education department. A teacher attempting to mainstream students for special activities or to reverse mainstream was discouraged. Now, in just a decade, special education policy has been reversed ... Neither regular nor special education teachers want students dumped in classrooms without ... requisite skills (Banks, 1992, p. 564).

The restructuring movement, however, breaks down the walls of separation with its vision of a community of leaders (Barth, 1990). Teachers are being asked to learn to work collaboratively within their own schools to improve education by creative problem-solving, which draws upon the collective expertise of all teachers within an individual school (Darling-Hammond, 1988; Fullan, 1991). Empowering teachers and creating collaborative school environments leads to a new definition of "instructional leadership," one in which teachers look to their peers as well as the principal for support in solving the learning problems of individual students (West, 1990; Little, 1988; Rosenholtz, 1988).

Peer leadership among teachers takes many forms, some more successful than others in promoting change in their peers and in their schools (Conley, 1991). The common element among these forms is best expressed by Little (1988) in the following

passage:

> The target of teacher leadership is the stuff of teaching and learning: teachers' choices about curriculum, instruction, how students are helped to learn, and how their progress is judged and rewarded (p. 84).

In the collaborative environment of a restructuring school, special educators would have the opportunity to contribute their knowledge of effective means to teach students with special needs to the collective expertise of the faculty. If special educators were seen as leaders by their peers, they would have even greater opportunities to ensure that the needs of all students were addressed in the general education classroom. The study reported in this paper was conducted in the belief that special educators have skills which could enable them to emerge as "teacher leaders" among their peers.

The purpose of our study was to address these questions:

1. Will the leadership exhibited by the special educators be seen by their peers to be as effective as that of the general educators?
2. Will there be peer leadership skills in which special educators excel and those in which general educators excel?
3. Will the special educators' self-perceptions of their skills

match the perceptions of their peers?

4. Was the technical assistance provided by project staff to the teacher-leaders a critical component in their leadership development?

Method

Setting

The investigation of peer leadership is one study within a larger research project which was based on the REI; we will refer to this work as the "study," and the larger research project itself as the "project." The project took place in a rural school district in the Northeast, between 1988 and 1992, in a county which had the highest proportion of any county in the state of recipients of ANFDC (Aid to Needy Families with Dependent Children). In the 1991-92 school year, 47% of the students were eligible for Compensatory Education and 13% received Special Education services. The target school was a K-6 elementary school with 260 students; of the twenty-one (21) teachers in this school at the time of the study eleven (11) had degrees at the Bachelor's level, nine (9) at the Master's level, and one was completing her doctorate.

The project was designed to test a model for school-based change which deliberately removes barriers to integration of students

with learning handicaps, promotes collaboration across professional specialties, and provides the resources for teachers to develop their skills in using special education technology in the general education classroom. One hypothesis generated for the project was that teachers are more likely to implement a plan for school wide change that they have developed themselves rather than a plan developed by others. Another hypothesis was that children will benefit most from instructional strategies when these strategies are part of a coherent schoolwide plan in which all of the teachers were the decision-makers and strategic planners.

The research team chose an intervention designed to enable all of the teachers in the target school, special and general educators alike, to develop a common language and knowledge base, to become aware of a variety of instructional strategies, and to understand one another's beliefs. A year-long series of monthly seminars was given for the entire faculty, focusing on organizational and instructional strategies for teaching students with learning problems in integrated classrooms and involving the teachers in a problem-solving planning process for their own school. Teachers could earn three graduate-level credits at the university and were offered a stipend for the additional planning work beyond the course requirements.

The seminars featured selected readings drawn from both general

and special education literature, a case study to which the teachers were asked to prepare a written response, a group discussion led by two members of the faculty, and a presentation by an "expert practitioner" from a similar rural setting. At the end of each evening, the group was asked to relate their discussion to the issues in their own school.

Participants spoke positively about the three-hour seminars, saying that they came to recognize which of their peers could serve as resources for specific problems. Because beliefs and values were imbedded in conversations around educational issues, the paradigm of separation between general and special educators was altered as all teachers worked together. There was a high level of investment in the school-wide plans that they developed at the end of the year, setting six goals for themselves.

At this point in the intervention, the research team realized that the teachers in the target schools would need leadership from within their own group if they were to continue to be the decision-makers as they implemented their plan. We asked for volunteers to take the lead in organizing the work on each goal, offering them a small stipend and ongoing technical assistance. For each of the three goals which was implemented in the first year, two teachers volunteered to serve as leaders; in the second year, four teachers volunteered leadership for an additional goal. By chance, one half of each of the teams of teacher-

leaders had special education background.

Each goal was handled in a unique way. Different leadership configurations and processes existed among the teacher-leaders, and each team of leaders took unique approaches to moving the entire school toward its goal. University research team members provided technical assistance in the form of consultation and material resources. Consultation activities included helping the teacher-leaders to plan meetings and training sessions and to develop tools for needs assessment and program evaluation, and providing participant observation and feedback. University resources provided specialized consultants for training sessions, an instructor for a graduate level course, professional library materials, funding for teacher attendance at workshops offered elsewhere, and networking opportunities. In providing supportive communication, research team members gave encouragement and a listening ear to the teacher-leaders, other teachers and administrators who were promoting change and ensured that teachers had opportunities to participate in dissemination activities, recognizing their contribution to current research.

After observing the growth in peer leadership among the teacher leaders, the research team formulated the research questions which led to this study.

Sample

Twenty-one teachers from the "target" elementary school in the larger research project became the sample for this study. Their roles included those of classroom teacher (K-6), special educator (consulting teacher, resource teacher, intensive special educator, and speech and language pathologist), compensatory education teacher (Chapter One), librarian, music teacher and physical education teacher. At the time of the study, all but three of these teachers had been participants in the seminars offered two years previously as the intervention in the larger research project.

Of the twenty-one teachers, ten had volunteered as "teacher-leaders," divided into four teams, three teams having two leaders and one team having four. One half of the members of each team were special educators by training, although two of the five special educators were teaching exclusively in general education classrooms; for the purpose of our study, we considered them to be "special educators."

The team with the longest tenure had been working together for two years, while the newest team had been in existence less than a year. There were four males and seventeen females on the faculty, but only one male volunteered to serve as a teacher-leader.

Instrumentation

The larger research project focused on "teacher empowerment" and schoolwide strategic planning as methods of achieving greater inclusion of students with special needs into general classrooms. Because these are themes from general education reform, we looked to general education literature for studies of peer leadership characteristics. The work done by Saxl, Miles, and Lieberman analyzing the leadership skills needed by educational "change agents" most closely matched the "peer leadership" characteristics we intended to study. We adapted the checklists of these eighteen skills from the workbook "Assisting Change in Education" (ACE) (Saxl, Miles, & Lieberman, 1989), a manual designed to train educational leaders.

From these checklists we prepared two measures of peer leadership skills, one for a self-rating by all teachers and one for peer nominations (See Appendixes A and B). On the first survey, teachers were asked to what degree they personally possessed the skill, using a three point (high, medium, or low) scale; we will refer to these results as "self rating." The second survey asked them to name three teachers in their school who frequently exhibited each skill; we will refer to these results as "peer nomination."

The peer leadership surveys were administered at a special

faculty meeting in Fall of 1991 by the three authors of this paper. All of the teachers willingly completed the survey, although several expressed their uneasiness at being asked to "rate" their peers.

Results

Our first and second research questions were considered together: Will the leadership exhibited by the special educators be seen by their peers to be as effective as that of the general educators? Will there be specific peer leadership skills in which special educators excel and those in which general educators excel?

An analysis of variance (ANOVA) was completed for both self-ratings and peer nominations across the eighteen peer leadership skills listed on the survey. We first compared the special educators (n = 6) with the general educators (n = 15), classifying as a special educator any teacher who had a master's degree in special education, regardless of teaching assignment, as well as those whose teaching assignment was exclusively special education.

We then examined how frequently special educators and general educators were nominated by their peers as exemplifying each of the 18 skills. Because 21 teachers each rated each other, the maximum number of nominations any particular teacher could get on

a skill (after self-nominations were excluded) was 20.

Results of the ANOVA indicated that the special educators were perceived by their peers as more skilled than the general educators in five areas: **Group Functioning**, $F(1,19) = 4.37, p = .05$, **Education General (or Master Teacher)**, $F(1,19) = 5.21$, $p = .03$, **Confrontation**, $F(1,19) = 5.31$, $p = .03$, **Diagnosing Organizations**, $F(1,19) = 4.53$, $p = .05$, and **Resource Bringing**, $F(1,19) = 4.28$, $p = .05$. (See Figure 1). There were no skills in which the general educators' peer nominations exceeded nominations for the special educators, and only in the area of **Support** did the average number of nominations for general educators approach nominations for special educators.

Insert Figure One about here.

Our third question was: Will the special educators' self-perceptions of their skills match the perceptions of their peers? To answer this we compared the results of the analyses of self-ratings and peer nominations. The ANOVA of the teacher self-rating showed significant differences between the special and the general educators in three skill areas, **Initiative Taking**, $F(1,19) = 4.57$, $p = .05$, **Resource Bringing**, $F(1,18) = 6.30$, $p = .02$, and **Demonstration**, $F(1,18) = 6.58$, $p = .02$. In each of these areas, the special educators as a group rated themselves

higher than the general educators rated themselves. (See Figure 2). Only in the area of **Resource Bringing** did the self-perceptions of special educators match with the others' perceptions of them.

Insert Figure Two about here.

Our fourth research question was more difficult to answer. Question four was: Was the technical assistance provided by project staff to the teacher-leaders a critical component in their leadership development?

To address this question we compared the teacher-leaders (n = 10) with the other teachers (n = 11). Results of an ANOVA of the self-rating revealed significant differences between these two groups only in the skill of **Group Functioning**, $F(1,19) = 8.95$, $p = .01$. Teacher-leaders rated themselves higher on group functioning (M = 2.6) than did the others (M = 1.9).

The ANOVA of the peer nominations showed significant differences between the two groups on 12 out of the 18 skills, with the teacher-leader group being rated higher in each case. (See Table 1).

Insert Table One about here.

We then determined the average number of peer nominations received by each team and the length of time that each team had been working. The average number of peer nominations received by these teams corresponds generally to the length of time that each team had been working, with the average of the most seasoned team (M = 146.5) being more than seven times the average of the least-seasoned team (M = 19.8). The teacher-leader pairs who began to work the earliest (24, 18, and 12 months, respectively) had received the greatest amount of technical assistance from the project team. The fourth team to begin received technical assistance for only three out of the nine months they had been working, and received the lowest totals of nominations. (See Figure 3).

Insert Figure Three about here.

One more indication of the strength of the special educators on this faculty became obvious when we analyzed the teacher-leaders as a group. Of the six special educators in the school, five were serving as teacher-leaders; the sixth spent only two mornings a week in the school, but received a proportionately high number of peer nominations.

Discussion

This study uses the framework developed by Saxl, Miles, and Lieberman (1989) as a way to assess to teachers' perceptions of their own and peers' leadership abilities in a small, rural elementary school. Although it is difficult to generalize from a sample of 21 teachers, the results suggest that special educators have leadership abilities that can be more widely applied to school reform, that these leadership abilities can be developed over time, and that elaborate "career ladders" which can violate standards of equality among teachers may not be needed to generate this leadership. Replication of this study in other school sites, using a random selection of teacher-leaders would extend our knowledge about the role of teacher leadership -- as exercised by both general and special educators -- in school reform.

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Table 1

Differences in Peer Nominations by Group

SKILL AREAS	TEACHER-LEADERS	OTHER TEACHERS
1. Interpersonal Ease	4.2*	.6
2. Group Functioning	5.0*	.7
3. Training/Doing Workshops	4.2*	.6
4. Education General (Master Teacher)	4.0*	.4
5. Educational Content	3.0	1.6
6. Administrative/ Organizational	3.8*	1.0
7. Taking Initiative	4.2*	.5
8. Trust/Rapport-Building	3.0*	.6
9. Support	2.4	1.7
10. Confrontation	3.3*	.6
11. Conflict Mediation	2.9	1.1
12. Collaboration	3.2*	1.1
13. Confidence Building	3.0	.8
14. Diagnosing Individuals	3.0*	.7
15. Diagnosing Organizations	3.6*	.8
16. Managing/Controlling	3.7*	.5
17. Resource Bringing	2.8	.8
18. Demonstration	3.2	1.1

* = $p < 0.05$

Figure 1

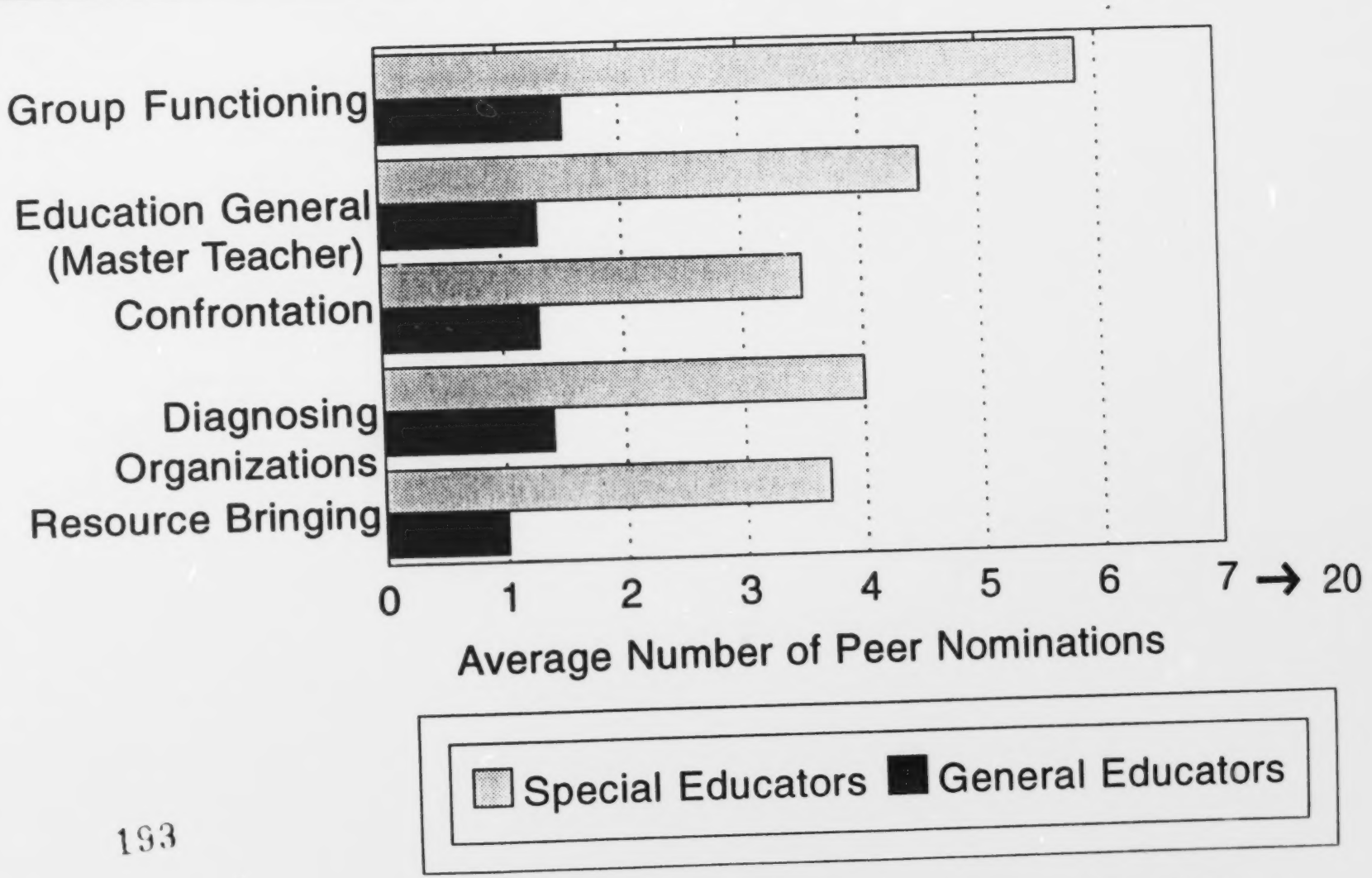

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Figure 1. The five skills for which the average peer nominations was significantly different ($p>0.05$) for special and general educators.

Figure 2

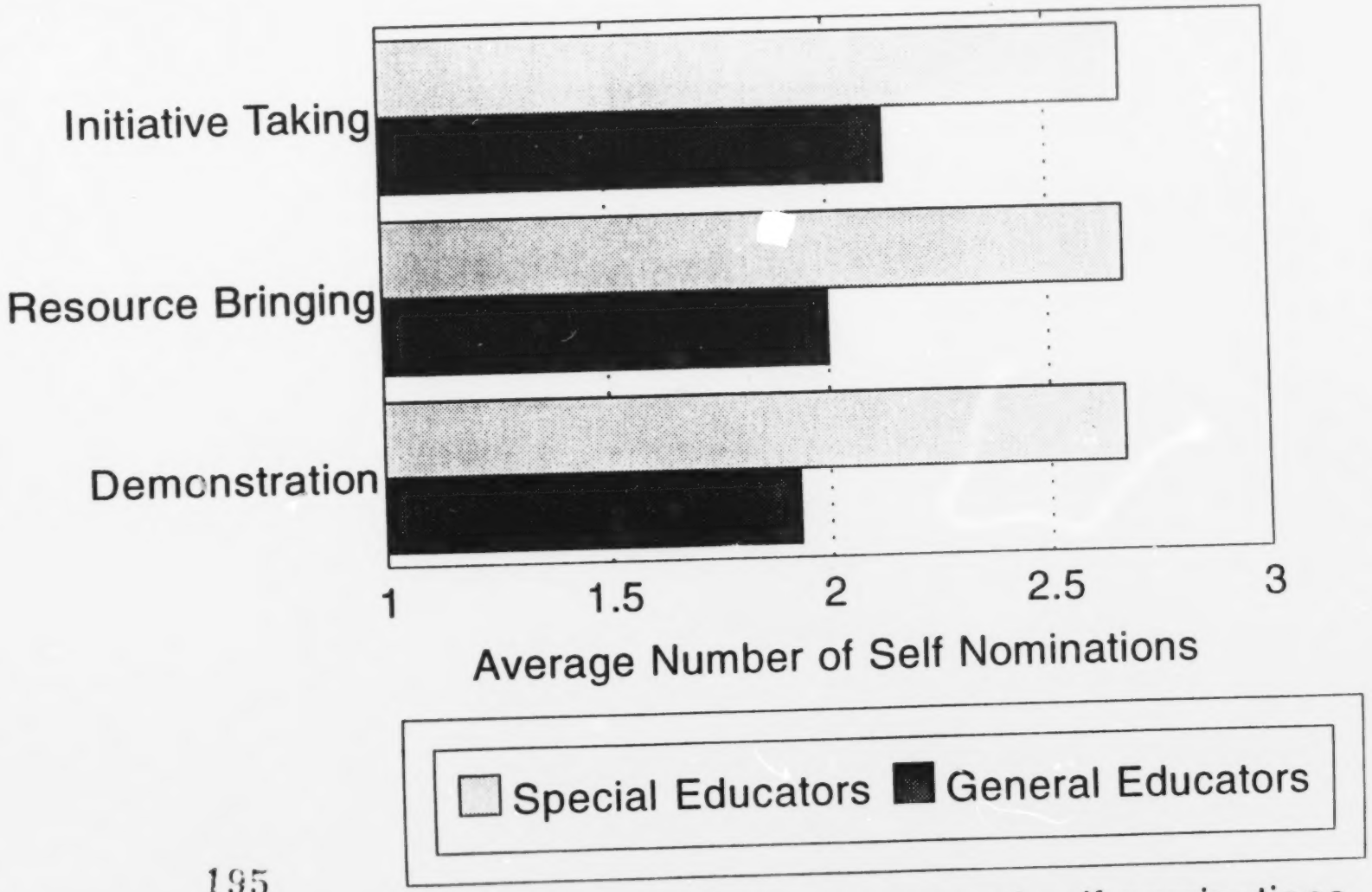

Figure 2. The three skills for which the average of self nominations was significantly different ($p>0.05$) for special and general educators.

Figure 3

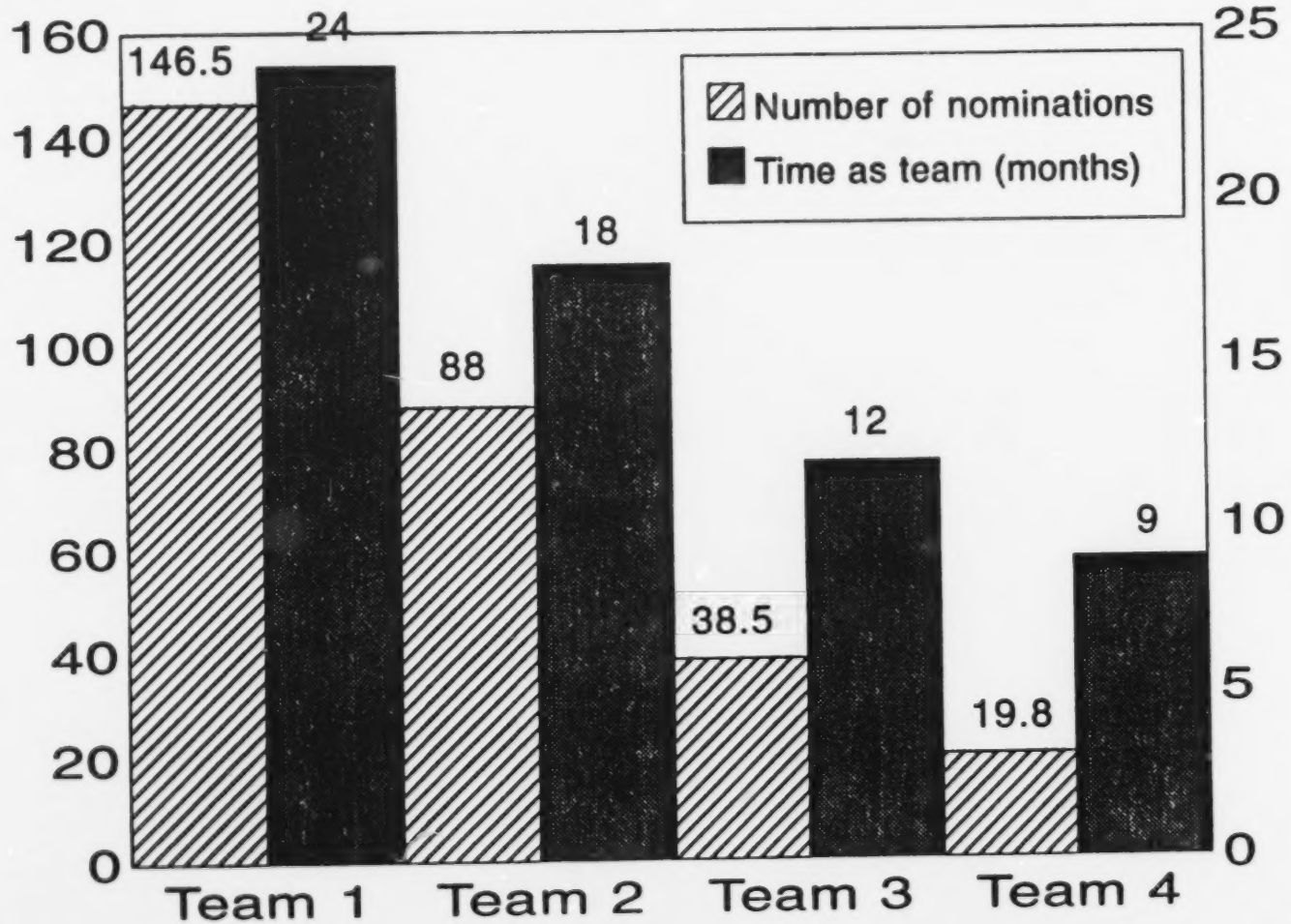

Figure 3. Total of peer nominations by team and time as team in months.

APPENDIX A:

Peer Leadership

Self-Rating Survey

PEER LEADERSHIP SKILLS

Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
1. Interpersonal Rapo./Relating to and directing others .	Very open person; nice manner, is able to deal with staff; knows when to strike, when to hold back, when to assert; knows "which buttons to push"; can talk to anyone.			
2. Group Functioning. Understanding group dynamics, able to facilitate team work.	Has ability to get a group moving; good group facilitator, lets discussion flow.			
3. Training/Doing Workshops. Directing instruction, teaching adults in systematic way.	Gave training on how to implement goals; prepares a great deal and enjoys it; has the right chemistry and can impart knowledge at the peer level.			
4. Education General. (Master Teacher) Wide educational experience, able to impart skills to others.	Excellent teaching skills; has done staff development with teachers; was always assisting, supporting, being resource person to teachers.			
5. Educational Content. Knowledge of school subject matter.	Demonstrating expertise in a subject area; knows a great deal about teaching; what she doesn't know she finds out.			
6. Administrative/Organizational. Defining and structuring work, activities, time.	Highly organized, has everything prepared in advance; could take an idea and turn it into a program; good at prioritizing, scheduling; knows how to get things up.			
7. Initiative-Taking. Starting or pushing activities, moving directly toward action.	Assertive, clear sense of what he wanted to do; ability to poke and prod where needed to get things done.			

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Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
8. Trust/Rapport-Building. Developing a sense of safety, openness, reduced threat on part of others; good relationship-building.	Gained confidence of staff; a skilled seducer (knows how to get people to ask for help); did not threaten staff; was open and understanding.			
9. Support. Providing nurturing relationship, positive affective relationship.	A certain compassion for others; always patient, never critical, very enthusiastic.			
10. Confrontation. Direct expression of negative information without generating negative effect.	Can challenge in a positive way; will lay it on the line about what works and what won't; is talkative and factual; can point out things and get away with being blunt; able to tell people they were wrong, and they accept it.			
11. Conflict Mediation. Resolving or improving situations where multiple incompatible interests are in play.	Able to mediate people to soften their attitudes; can handle people who are terribly angry, unreasonable; keeps cool.			
12. Collaboration. Creating relationships where influence is mutually shared.	Deals on same level we do, puts in his ideas; looks and directs us, but as peers; doesn't judge us or put us down; has ideas of her own, but flexible enough to maintain other teachers' way of doing things, too.			
13. Confidence-Building. Strengthening another's sense of efficacy, belief in self.	Makes all feel confident and competent; doesn't patronize; has a way of drawing out other teachers' ideas; makes people feel great about themselves; like a shot of adrenaline boosting your mind, ego talents, and professional expertise.			

Description of Skill	Examples: What others might say about this person:	Degree to which you possess this skill: High	Medium	Low
14. Diagnosing Individuals. Forming a valid picture of the needs/problems of an individual teacher or administrator as a basis for action.	Realizing that when a teacher says she has the worst class, she means "I need help"; has an ability to focus in on problems; picks up the real messages; sensitive, looks at teacher priorities first; knows when an off-hand joke is a signal for help.			
15. Diagnosing Organizations. Forming a valid picture of the needs/problems of the school organization as a basis for action.	Analyzes situation, recognizes problems, jumps ahead of where you are to where you want to go; anticipates problems the school is facing; helped us know where we should be going.			
16. Managing/Controlling. Orchestrating the improvement process: coordinating activities, time and people; direct influence on others.	Prepared materials and did the groundwork with principal and school board; is a task master and keeps the process going; makes people do things rather than doing them himself.			
17. Resource-Bringing. Locating and providing information, materials, practices, equipment useful to clients.	He uses his network to get us supplies; brings ideas that he has seen work elsewhere; has the newest resource, methods, articles, and ideas, and adapts them for our needs.			
18. Demonstration. Modeling new behavior in classrooms or meetings.	Willing to go into classrooms and take risks; modeling; showed the chair by his own behavior how to be more open.			

Adapted from Saul, S.R., Miles, M.B., & Lieberman, A. (1990). ACT - Assisting change in education. Alexandria, VA: Association for Supervision and Curriculum Development.

APPENDIX B: Peer Leadership Peer Nominations

PEER LEADERSHIP SKILLS

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
1. Interpersonal Base, Relating to and directing others.	Very open person; nice manner, is able to deal with staff; knows when to stroke, when to hold back, when to assert; knows "which buttons to push"; can talk to anyone.	1. _____ 2. _____ 3. _____
2. Group Functioning. Understanding group dynamics, able to facilitate team work.	Has ability to get a group moving; good group facilitator, lets discussion flow.	1. _____ 2. _____ 3. _____
3. Training/Being Technique. Directing instruction, teaching adults in systematic way.	Gave training on how to implement goals; prepares a great deal and enjoys it; has the right chemistry and can impart knowledge at the peer level.	1. _____ 2. _____ 3. _____
4. Education General. (Master Teacher) Wide educational experience, able to impart skills to others.	Excellent teaching skills; has done staff development with teachers; was always assisting, supporting, being resource person to teachers.	1. _____ 2. _____ 3. _____
5. Educational Content. Knowledge of school subject matter.	Demonstrating expertise in a subject area; knows a great deal about teaching; what she doesn't know she finds out.	1. _____ 2. _____ 3. _____

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
6. Administrative/Organizational. Defining and structuring work, activities, time.	Highly organized, has everything prepared in advance; could take an idea and turn it into a program; good at prioritizing, scheduling; knows how to set things up.	1. _____ 2. _____ 3. _____
7. Initiative-Taking. Starting or pushing activities, moving directly toward action.	Assertive, clear sense of what he wanted to do; ability to poke and prod where needed to get things done.	1. _____ 2. _____ 3. _____
8. Trust/Support-Building. Developing a sense of safety, openness, reduced threat on part of others; good relationship-building.	Gained confidence of staff; a skilled conducer (knows how to get people to ask for help); did not threaten staff; was open and understanding.	1. _____ 2. _____ 3. _____
9. Support. Providing nurturing relationship, positive effective relationship.	A certain compassion for others; always patient, never critical, very enthusiastic.	1. _____ 2. _____ 3. _____
10. Confrontation. Direct expression of negative information without generating negative affect.	Can challenge in a positive way; will lay it on the line about what works and what won't; is talkative and factual; can point out things and get away with being blunt; able to tell people they were wrong, and they accept it.	1. _____ 2. _____ 3. _____

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
11. Conflict Mediation. Resolving or improving situations where multiple incompatible interests are in play.	Able to mediate people to soften their attitudes; can handle people who are terribly angry, unreasonable; keeps cool.	1. _____ 2. _____ 3. _____
12. Collaboration. Creating relationships where influence is mutually shared.	Deals on same level we do, puts in his ideas; leads and directs us, but as peers; doesn't judge us or put us down; has ideas of her own, but flexible enough to maintain other teachers' way of doing things, too.	1. _____ 2. _____ 3. _____
13. Confidence-Building. Strengthening another's sense of efficacy, belief in self.	Makes all feel confident and competent; doesn't patronize; has a way of drawing out other teachers' ideas; makes people feel great about themselves; like a shot of adrenaline boosting your mind, ego talents, and professional expertise.	1. _____ 2. _____ 3. _____
14. Diagnosing Individuals. Forming a valid picture of the needs/problems of an individual teacher or administrator as a basis for action.	Realizing that when a teacher says she has the worst class, she means "I need help"; has an ability to focus in on problems; picks up the real message; sensitive looks at teacher priorities first; knows when an off-hand joke is a signal for help.	1. _____ 2. _____ 3. _____
15. Diagnosing Organizations. Forming a valid picture of the needs/problems of the school organization as a basis for action.	Analyzes situation, recognizes problems, jumps ahead of where you are to where you want to go; anticipates problems the school is facing; helped us know where we should be going.	1. _____ 2. _____ 3. _____

Description of Skill	Examples: What others might say about this person:	Three teachers who frequently demonstrate this skill:
16. Managing/Controlling. Orchestrating the improvement process; coordinating activities, time and people; direct influence on others.	Prepared materials and did the groundwork with principal and school board; is a task master and keeps the process going; makes people do things rather than doing them himself.	1. _____ 2. _____ 3. _____
17. Resource-Bringing. Locating and providing information, materials, practices, equipment useful to clients.	He uses his network to get us supplies; brings ideas that he has seen work elsewhere; has the newest research, methods, articles, and ideas, and adapts them for our needs.	1. _____ 2. _____ 3. _____
18. Demonstration. Modeling new behavior in classrooms or meetings.	Willing to go into classrooms and take risks; modeling; showed the chair by his own behavior how to be more open.	1. _____ 2. _____ 3. _____

Adapted from Bent, R.B., Miles, M.B., & Lieberman, A. (1990). ACE: Assisting change in education. Alexandria, VA: Association for Supervision and Curriculum Development.

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MAKING CONNECTIONS THROUGH VOICE: TEACHER RECEPTIVITY TO CHANGE

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September 30, 1992

MAKING CONNECTIONS THROUGH VOICE:
TEACHER RECEPTIVITY TO CHANGE

ABSTRACT

Research studies increasingly focus on the pivotal role that teachers play in educational reform. Yet limited qualitative data exist in which teachers describe their willingness to change. This study identifies five organizational and personal factors which teachers in a small rural school district say affect their receptivity to change: basic conditions, support, voice, meaning and efficacy. A model is developed to show the progressive and interactive relationship among these factors. The factor of voice - the ability of teachers to initiate and decide change and to be heard as respected members of the school community - appears to provide a critical connection between organizational and personal factors, increasing teacher receptivity to change.

RESEARCH FRAMEWORK

> Change? I'm pretty conservative. The minute somebody says 'change,' I say, 'Shut up, sit down, back up.' If somebody says, 'We are changing this and this and this, and we are going to do it tomorrow,' I am the first one to fight it because I want time to think it through, look at it, examine it, check it out....to see if it works and fits for me (Jackson teacher).

Change does not come easily to many teachers. Schools provide frameworks of theory, values and meaning which enable participants to make sense of their lives (Fullan, 1991). Change, which is often accompanied by chaos and unpredictability, threatens these frameworks. It can lead to "consternation for some, indignation for others, shock for still others, and hope for a few" (Hall, Loucks, Rutherford, & Newlove, 1975, p. 5).

Because educational change "depends ultimately on what the teacher thinks and does in the classroom" (Larson, 1988, p. 55), it is important to understand how teachers receive and react to change. Yet teacher attitudes about change have attracted little attention in the literature on educational reform (Rudduck, 1991; Fullan, 1991). Recent research by Richardson (1991), Smylie (1991) and Waugh & Punch (1987) on teacher willingness to change, however, points to two types of factors, organizational and personal, to explain why many teachers accept or reject change.

Organizational factors refer to the culture of schools: the basic assumptions, common values and shared expectations for what a school is and should be. Teachers often evaluate school changes

according to how well the changes mesh with these "sacred" norms (Rossman, Corbett & Firestone, 1988). Changes which are consistent with or promote established patterns of practice and belief are more likely to be accepted. Changes which are incompatible will be resisted and abandoned (Smylie, 1991). Richardson (1991) suggests it is not surprising that organizational factors emerge as major barriers in teacher implementation of planned changes. After all, it is the organization which has traditionally developed and mandated changes with limited participation from teachers. Teachers are "pawns in the system with little power to make autonomous decisions" (p. 70). Organizational factors include teacher involvement in initiating and implementing plans (Fullan, 1991), the degree of collegiality and support for experimentation in schools (Little, 1987), the level of consensus among faculty members regarding school goals and organization of work (Rosenholtz, 1989); and the type of resources, including leadership, available to support change (Rossman, et al., 1988). They affect the willingness of teachers to step back from the established and accept "new definitions of what is and what ought to be" (Rossman et al., 1988, p. 129).

Teachers also evaluate changes according to "personal fit" with their backgrounds and skills in teaching. Waugh & Punch (1987), for instance, note the impact of personal attitudes and feelings about change; teachers make a personal cost appraisal of the amount of time, energy and commitment needed to learn new skills before deciding whether the changes are worth investing in. Richardson (1991) describes a variety of studies which conclude

that teacher beliefs about how and what students should learn, derived from their own personal experiences and biographies as students and in previous years teaching, significantly influence teacher willingness to change. Lortie (1975) finds that teachers usually internalize the practices of their own previous teachers. If teachers are to behave in new ways, they will have to confront, understand, and be freed of these unconscious influences and then synthesize the best of past and current practices.

Organizational and personal factors can be related. Wagen, et al. (1982) identify, for instance, relationships between organizational and individual characteristics to explain teacher willingness to risk change. "Innovative" teachers in this study feel significantly more power to influence administrative decisions and policies related to teaching than "other" teachers because they are more involved in professional activities related to their teaching responsibilities, are older with more years of teaching experience, and are more inclined to experiment.

The Research

This study seeks to expand our understanding of teacher receptivity to change by focusing on what teachers in a small and rural school district say about their experiences with change. What organizational and personal factors affect teacher receptivity to change? How do they relate? We need to know what change looks from the point of view of the teacher in order to know how institutional elements, such as school boards, teacher training programs, and school financing, can support fundamental school change at the local level.

Lightfoot (1983) suggests that the portraits of a few schools can enlarge our understanding of the experiences of many schools. Portraits of small and rural schools, which comprise 47.2 percent of all school districts in this nation (Elder, 1992), are also often missing in the educational literature. To cope with limited resources, many rural teachers turn to alternative instructional strategies, such as project learning, multi-age instruction and telecommunications technology, which require teachers to approach their roles differently from ways they were trained to teach (Wagen, Sederberg & Hendrix, 1982). Since these strategies are now being recommended for school restructuring in general, insights into the experiences of rural educators may prove particularly valuable (Lewis, 1992). We must remember, however, that teachers are only one element in the change process. They are part of larger school organizations which have their own priorities and feature other key actors such as administrators, school board members, parents and students. Though this study emphasizes the role of teachers in changing schools, the involvement and reactions of other school community members significantly influence how schools change.

"Receptivity" defines the ability or capacity of people to receive, take in, hold and accept. The term builds on the views of Wagen et al. (1982) and Giacquinta (1975) that receptivity is the variation in acceptable conditions of risk. The higher teachers perceive the risks of change to their professional status, the lower their receptivity to change. Waugh & Punch (1987) identify three key and related components of receptivity:

feelings about change, which affect attitudes towards change, which drive behaviors in change. Receptivity focuses on the voluntary commitment of teachers to change, implying a willingness not only to comply with and adopt an innovation but also to construct and implement it.

Sample. This study was conducted during the 1990-91 school year in the small and rural New England community of "Jackson." The elementary (K-6) school and the secondary school (7-12) each served 250 students. All 40 Jackson teachers, including the general education and special education teachers and specialists (physical education, music, art, technology, library and guidance) participated in the study. As Table 1 indicates, a majority of these teachers had taught more than ten years in the school district and had advanced degrees.

[Put Table 1 here]

Access to Jackson teachers was possible through my work as a researcher on a four-year, federally-funded special education project. The purpose of the project was to discover an effective way for teachers to explore and adopt a variety of educational strategies to better meet the needs of all learners, including those with disabilities. We tested a collaborative research and planning process with the Jackson teachers that included a system of identifying teachers as leaders for follow-up support. The Jackson schools were selected for this project because they were "typical" of many small and rural schools in New England given their limited resources, veteran teaching staffs, traditional organizational structures, strong community ties, and isolated

setting. The difficulties the Jackson schools were encountering with educational change appeared similar to those many other small and rural schools were facing.

Specific change events with which Jackson teachers contended during the four-year project included: 1) the resignation of the two principals, resulting in the appointments of a male athletic coach as elementary principal, and a young male, previously an assistant principal from out of state, as secondary principal; 2) the extended illness and death of the new secondary principal over an eighteen-month period; 3) the required participation in a time-consuming state school approval certification process; 4) an administrative mandate to heterogeneously group and teach seventh grade classes; 5) three school budgets voted down by the Jackson community in one year; 6) increased numbers of students eligible for special services and the "homecoming" of students with intensive special needs from a regional self-contained program to general education classrooms; 7) the completion of an elementary building addition which led to a controversy about allocation of classroom space; and 8) the research project itself.

Methods. Three naturalistic research methods were selected to provide multiple sources of data about teacher receptivity to change: focused interviews, participant observations and document reviews. Focused interviews were open-ended in nature, allowing teachers not only to focus on key questions about organizational and personal factors but also to reflect in general about what affects their acceptance of change. The 40 teacher interviews took place in individual, forty-five minute sessions between

October and December, 1990, the third year of the research project. Follow-up interviews were arranged as needed to clarify points made by the teachers. The interviews were audio-taped and transcribed. The two school principals were also interviewed to gain information about the purpose of certain school changes and how these changes were approached with teachers. Participant observations included 28 visits to the schools. Reviews of school and district documents provided additional views about change in the Jackson schools.

Data Analysis and Reporting. The data were analyzed using a constant comparative method of content analysis (Glaser & Strauss, 1967). This method permits inductive identification and classification of themes and patterns in data across respondents. "The Ethnograph," a computer program for analyzing text based data, facilitated this process (Seidel, Kjolseth & Seymour, 1988). Themes and patterns which emerged from the analysis were clarified and verified through an in-depth review by other project team members and selected Jackson teachers, and presentations to all Jackson teachers. Comments, insights, and clarifications were incorporated into the data analysis.

In presenting the research findings, I make extensive use of quotes from interview transcripts. The direct voices of teachers capture the essence of issues regarding teacher receptivity to change. This practice corresponds to the philosophy of naturalistic inquiry which values how participants construct their world and the words they use to express this world.

FINDINGS

Five major factors affecting teacher receptivity to change emerged from the data. Two factors were organizational in nature: basic conditions and support. Two were personal: meaning and efficacy. Another factor was both organizational and personal: voice. Indeed, it was often difficult to understand where the organizational ended and the personal began. Jackson teachers would use both types of factors in a single thought about change. But there was a difference. Organizational factors were those over which teachers had little control. Personal factors were those over which teachers exerted more influence. As I will suggest in the discussion section, it is when teachers have a voice in change, defined by the ability to initiate and decide change and to be heard as respected members of the school community, that they are able to bridge the organizational and the personal and engage in fundamental school change.

ORGANIZATIONAL FACTORS

Jackson teachers spoke most frequently about how the basic conditions of their work negatively influenced their openness to change. They talked about how difficult it was to gain support from principals, other teachers, and community members. They preferred, therefore, to concentrate on changes at the classroom level, modifying current teaching practices in ways that were comfortable for them and responsive to the needs of students.

Basic conditions. Basic conditions describe the degree to which schools are ready for change. Both elementary and secondary teachers said the climates of the Jackson schools are isolating

and uncertain and provide little incentive for working together to effect change.

> You have a lot of walls in this school. Some days you have low ones, some days big ones between your departmentalized program and your lower grade program. You have a wall between special education and regular education. You have one between teachers and administration. You even have walls between one grade and another. A lot of this can be expected. You can't expect this number of people to get together and be in a beautiful, utopian state of being. But some of these walls must be erased if we're going to change.

"Well, I'm not going to hide the fact, we're in crisis here with the principal so ill.... People have pocketed off in departments and pulled the covers up over their heads, hoping for the best." "Everything is on hold now. Most people are waiting to see what happens. Only then can you start dealing with all these new ideas we have been putting off and thinking about."

Teachers said the climates of their schools are also negative and devisive. "I really feel people should talk about things openly and directly. But it's just the opposite here. It truly hurts the morale of the building."

> This is a negative place to work. I would love it to be a positive place. There are some of us trying to develop some comraderie....But I still say it's a negative place to work. You get negative feedback from the school board, from the community, from each other, and we've got such a large group

angry at the principal. I walk in here and I feel bombarded by this negative attitude.

"It's as if there are two camps in this school. There's the administration and a couple of teachers, and then there is another group of teachers." "Personality issues overshadow educational issues, which is a shame because they get in the way of the real focus of what we should be talking about - kids." "These problems are still there, but we've just buried them. Nobody wants to put the time and effort into trying to change."

> This year I am not going to get involved in the politics of this school. I have dedicated the rest of the year to the children....It may cost me in the long run, but teacher contracts are up this year and negotiations start soon and the frustration level will go up and again children will be put on the back of the bus...well, I will just get on the bus and walk to the back with them and let everyone else do the other stuff.

The lack of such resources as time, training, funding and personnel also inhibit teacher interest in change.

> I've got all these great ideas, but I never can put them into place. It's like moving into an old house and having all these dreams, but having no money. You're lucky if you can paint the outside of the house. That's where we're at right now. Time is a real problem in our schools, it's more so than I ever imagined.....You barely have time to eat lunch, let alone talk about the real problems around here.

"I don't see us trying to change towards our goals as long as we've got teachers teaching six different preparations [in a seven-period day]. How much energy and work outside of these four walls can you expect from one person?" "If I'm doing my job right, doing all that I am supposed to do, I just don't have time for change." "You get to the point where you can't do another creative thing if you tried." "It's not the unwillingness on the part of teachers to change as much as it is scheduling, not being able to fit it in." "When do you find the time to figure out when and how you're going to use a change, who you're going to do it with, and when you're going to do the training?"

Teachers said most staff development is largely ineffectual. "Courses get you up for a while but then it's hard to apply what you learn." "I went to a reading workshop this summer...and I came out thinking I had to change everything but then I decided I couldn't because...it just wasn't me." Teachers liked courses which "implement changes in the classroom as part of the training and then we report back for support as to how things went." They appreciated learning with and from their peers.

> It's amazing that I've worked as long as I have with these teachers and I didn't really come to know them until the training. I didn't know their views and how they felt. They helped me realize some of the views I was holding on to were archaic. And some were good things worth retaining.

Budget and personnel issues are of continuing concern. "We came up with this wonderful plan, but it needed funding. Without

the funding it failed. I mean it fell flat on its face." "We can work on changes but I think they're all dead in the water. We have no budget or staff training to make anything happen."

> The main thing that holds up a lot of changes is budgets. We've been cut so much, it's ridiculous....You have a limited amount of materials, so you can't do all the programming that you need to do. You don't have an aide, so you can't give the services you need to give. Do I do the paperwork or the services? Which is the priority? If you don't do the paperwork, the district doesn't get their money ....If you don't do the services, teachers get upset, children get frustrated, parents get upset and frustrated....So you are stuck in the middle, depending on who feels like screaming at you on a particular day.

"How many weeks have I been here? Maybe five. I find that some of my ideas and energy have already died. There's too much for one person to do. They cut the other position this year."

> September was horrible. I tried all month just to get my aide back but I had to go to the school board to do it...and no one would support me....So now I have pieces of time of other aides in the school but it's so draining because these people haven't worked with me before and they don't know how to work with my kids and it has been really tiring."

Some teachers worried whether they would even have a job the next year. They said it is difficult to think about school

change when their own personal survival and the needs of children who may not be served are at stake.

> As far as my program goes...I'm at the school board's mercy....I don't have any job security and protection. Every day, starting in February when the budgets are worked on, I sweat out whether or not they will choose to axe my program....Now I'm trying to buy a house. So I'll buy a house and then they'll say I have to leave and I'll have to look for another job. It's scary.

Student needs is another basic condition inhibiting teachers' ability to change. "So many students at this school have so many problems that it's difficult to teach because you're too busy trying to be too many things to too many people." "It's the behavior and things going on in the home that are the problems ....You can't separate their homes from what happens in school."

> The other day he had me in tears. His father had come home drunk in the middle of the night and broken things up. He was scared at school because he didn't know what would happen later. How could I teach until I dealt with this boy with tears streaming down his face? He wouldn't even talk to me in the first place; he wouldn't tell me what was the matter. We played twenty questions before I finally got to him.

"I don't know what the answer is. Society itself and the home life of some of these kids are just so bad. But if parents can't handle them at home, how do you expect the school to handle them?" "I have twenty-seven students with all sorts of problems,

more than half receiving special services. How can I sort out all the family and learning issues they face?"

Effort seems to summarize the effect a negative school climate, lack of resources and demanding student needs have on teacher receptivity to change. Teachers said it takes too much effort just to get through the school day.

> There is no time to think about change. It's frustrating because you can get most of this group involved, though not to the same extent. But the staff is so tired of carrying the load....Some key people who do a really great job are just really worn out and now we might lose some of them....If we could just have a magic wand to help us do everything.

"I'm tired of investing my time without a commitment to solutions we come up with...if we're not allowed to try and not given the support we need...it's a waste of my time and effort."

> Judging from the results, I wouldn't even be interested in starting all over again. We got nowhere. We spent all that time brainstorming problems, narrowing it down to the problem we wanted to address. We came up with a good solution and then we hit a brick wall [the school board]. After spending all that time, it was an insult.

Teachers suggested "thinking small" about change. "Maybe if we had started with a smaller problem to deal with at first, and got other people involved from the beginning, like the school board, it would have worked better." "Some years ago, we picked an issue that was bothering us but something we could do something about. And we walked away feeling proud of ourselves. Maybe we

should have tried something that wasn't so emotional." "Sometimes I think we go around and around about an idea...and don't accomplish anything...instead of just trying something and see how it works and then building on that."

Support. Jackson teachers said they need support from principals, colleagues, and community members to help get past what may always be insufficient basic conditions for change. Teachers particularly focused on the limited support they receive from principals. When positive changes occur in their schools, they said, it is despite the principals and not because of them. "It's really hard with no leadership here, a principal saying, 'We're going to have a meeting and talk about this as a staff.'"

> He doesn't know anything about my program. He doesn't know anything about my kids, about their needs...or my needs. He doesn't initiate any discussion about these things...my feeling is that he doesn't want to know."

"I went to him regarding scheduling, and he didn't help me....He told me I was a troublemaker last year and not to be one this year. I left feeling really bad, because I really care about the kids." "I didn't get anywhere with him, and, in fact, I learned that he holds a grudge...and so I've changed my tune and try to be obedient and nice...but it's only to survive."

Teachers recognized that being an administrator is not always easy. "If someone said, 'I'll give you $100,000 to be a small school principal in a small town', I'd say, 'No!' The factors you have coming at you are almost unimaginable." Regarding the secondary principal, "I saw a definite change in him last year. I

really felt he was trying to be more open and more willing to listen and take suggestions, that teacher empowerment kind of stuff." "But he's become discouraged because there are teachers who have been here forever...and the school board is still giving him a lot of crap, so his hands are tied in doing anything."

> You have to picture how embedded this town is in small-town politics. It's a whole system that works a certain way. If you've been here a while, you know this. If somebody says, 'Okay, now we're going to do this.' Then it's, 'Oh, yeah? Not in this town.'

Though recognizing the difficulties of being a principal, teachers said they are unwilling to invest in school changes until their principals become more responsive to teacher needs. "His support is definitely encouraging for me. I can generate a lot of motivation internally, but if it's not supported externally, I finally reach a point where I can't do it anymore." "Having had six or seven principals in fifteen years, you get to be like an island having to float around by yourself." "I think seeing the last hold out, the person who would always say 'We're not going to give up, we're going to do this,' having her finally say 'I've had it with him', well, that was just devastating." "Now we just rumble among ourselves and it's pointless in terms of doing any real change." "If anything is going to happen at all, it's got to be at the teachers' initiative. For a few self-motivated people, it's there but others are just fed up and don't care."

Teachers described the support of colleagues as also critical. "I'm teaming with a lot of teachers which I had never

done before. Working on that training assignment was scary for me and I think scary for her....doing it together has made it so much better." "Four of us were having problems with different children but then we found the behaviors were similiar, that all of them had lost a parent. Talking it out together, we were shocked to discover this commonality." "There is more interaction and now we are coming up with strategies to deal with kids instead of just sitting around talking which is what we did last year." "It's like sharing the wealth and four heads certainly are better than one in solving a lot of our problems."

Teacher said, however, that there needs to be stronger collaboration in the schools if schools are to truly change.

> I see teachers in this school who certainly have the skills to be instructional leaders...and other members of the faculty recognize they have those skills too, skills that they can benefit from. So, the recognition is there, but it needs to extend to the collaboration phase or even to a phase where teachers offer their skills or ask for learning from others.

"A lot of people are still resistant about teaming because they're doing their own isolated thing. Teachers tend to be isolated. You're in your own little box, in your own little textbook." "Working together takes more time. Teachers will give you their classes but they won't give you their time."

> The seminars have drawn us together because we've been forced to and now we're taking the initiative to meet and exchange ideas. We'll never have total agreement on

everything, we never will. It's like a bell curve. There are always some at one end and some at the other, but as long as the bulk of us are at the middle and working toward the goals, I think we're okay.

Many Jackson teachers wished community members were more supportive of change and less interested in maintaining current services at a minimum cost. "Last year $200,000 was chopped off our budget....People look in their wallets and say, 'What's it going to cost me? Not, what will my kid get out of this?"

People are feeling a tax pinch. I'm a homeowner here too. My taxes have just about doubled in only four years. So I've certainly felt a pinch. And I know what some of these other people are feeling. They look in the town report and see our salaries and think we're ripping them off, that we're glorified babysitters. That we don't really work for a living.

"Cut the budget and get rid of as many teachers as they can. That's the [community's] attitude right now. That's what we're hearing. It affects our performance because we know that's the attitude." "So as long as community expectations don't drive the school in new directions, it's easy to maintain faculty's current perspectives."

VOICE

A third factor which teachers said influences their receptivity to change is voice or the ability to initiate and decide school changes and to be heard as valued members of the school community. "To be told you have to do something causes the

most hard feelings and the most resistance toward accepting a new program." "We absolutely had no choice and spent five full in-service days on this....it was dumped on us."

> Some of the programs are mandated from the main office. They seem to die faster than you can shake a stick at because adults are like children, they don't like to be told what to do, that 'The whole school is going to do this.' The ones that are most successful and probably retain most of their parts in the classroom are the ones which are done like this, 'What do you think about this? If you are interested, we'll send you to do this.' In other words, volunteering.

"We've had enough things shoved down our throats....Teachers are pretty independent. You can lead a horse to water but don't shove him in."

Teachers complained about their lack of participation in decision-making. "I get upset when unilateral decisions are made and we have no input." "We haven't gotten far in terms of our goal of operating this school as a democracy....[In a democracy] people communicate and work together toward common goals, not only in words but actions."

> We've been asked, but the information isn't used....in fact it's a negative thing to give your opinion unless it agrees with what the policy already is. If I say something at the teachers' meeting that's against his view, I know I'll be observed the next day in class.

"When ideas come up at faculty meetings, the people who are opposed to something generally don't say anything." "I think the majority feel that they can't express their opinion if it differs from his....Before you more or less did what you wanted to. Now you do what [principal] wants you to do."

In response, elementary teachers established a group process for communicating and making school decisions. Though the process received only lukewarm support from the principal, teachers found it "has gotten people to say things they wouldn't have said normally. It has brought things to light."

> I like the process because the way the school is set up, we don't have a lot of staff meetings....I like to know how other teachers are feeling and I like other people to know how I'm feeling without having to go around to fifteen different people and saying, 'I'm angry about this.' And that is what was happening. A lot of people were upset about things but had no way to express them with others.

Many teachers also said they concentrated on initiating change where they could, in their own classrooms. "I've developed these courses, accumulating different ideas and lessons and building contacts over the years....They're now learning things they need to know and use when they get out of school." "I decided I wanted to do [new math program] in my class and just did it." "I'm teaching the general sections too and decided not to water down the materials this year for them and they're handling it okay. The course is just too important to water it down." "I designed it for those kids who have trouble concentrating....

and it sort of blossomed into a multi-purpose corner. It's been so effective every year, regardless of what room I'm in, I design my room so that that corner is there." "I get other teacher input but the ultimate decision about [special education placement] ends up being mine and the parents....I know what I'm supposed to do, I know the kids, I know the needs."

Some teachers, however, hesitated when offered opportunities for more involvement in decision-making. "Organization-wise, I hate being out front. It's not my forte. My strong point is being in the trenches with the kids....I'll just give plenty of feedback from the trenches." Complaining about peer reactions to a project they initiated, secondary teachers said, "They don't want others coming in and telling them what to do. They missed the whole point entirely...and so gave up the opportunity to have a little bit of power in decision making." Many teachers decide just to go along with change, knowing another program will soon take its place.

> If I'm supposed to do them [change programs], I do them. If I'm not supposed to do them, I don't do them. I'm one of those people. I know there is a lot on the bandwagon and you get involved and then something else comes along and I never have any say....So if I'm asked to do it, I just will.

PERSONAL FACTORS

Jackson teachers said two major personal factors influence their receptivity to change: meaning and efficacy. Meaning comes from fitting a change to the needs of students. Efficacy derives from knowing a change makes a difference in the lives of students.

Meaning. Change is meaningful when teachers have the ability to evaluate and adapt a change effort according to the needs of students. "My approach may be a little old-fashioned but it works for me. I'm not anxious to try things that I see other people doing not very effectively. I'm very conservative in that respect." "I haven't been inspired into doing the new [program] because I'm not convinced how valuable it is. I prefer the other one because I believe it will make a difference in the long run for children." "There's probably good in all new programs and trends coming down the line. Sometimes you just have to pick and choose what you feel is best for kids and what you've found to have the best results." "With every new thing that comes along, you keep a little bit of what really works for you and students."

> Practicing and internalizing a change also leads to meaning. What works for me is if somebody says to me, 'Now take what we are learning and do it in your own class.' Then I will do it....Until I actually use something, I don't feel like I've integrated it into my repertoire....That's the ultimate goal to me...you got to use it, otherwise you lose it.

"I was very much against mastery learning to begin with, and then I was forced to use it with another teacher and I found that I really enjoyed working with it. I saw a lot of benefit."

> My attitude about mainstreaming has really changed. I used to be pretty rigid in my thinking...but now that I'm spending more time in the mainstream setting, I'm gaining the respect of all kids, like a 'real' teacher. I love it. I am there to help my kids experience greater success in the mainstream.

Some teachers said it is easier to believe in the need for a change when the whole school together invests in the change. "I like the idea that everyone has made a commitment to do these things because there is more likelihood of follow-through....It's helpful to the students to know there's consistency throughout the school." A lack of commitment from colleagues is disheartening "because if some teachers don't make room in the day to do the program, then it will not fully materialize in the school."

Jackson teachers also spoke about life experiences which have influenced their thinking about change.

> Why am I still here?...The way I grew up directly relates to and mirrors the majority of children I work with. When I was in school, I carried a lot of the same labels....Teachers didn't want me in their classrooms because I was difficult....So I'm here now to change things for the children who are like I was.

One teacher remembered how she got involved in a graduate program. She had a girl in her class whose learning problems were not being served well by the school system. Other professionals, who knew the girl only slightly, had the power to make decisions regarding the girl's placement because this teacher did not have the "right" degree. The teacher decided to get the degree so others would listen to her when she argued for what was best for children.

Some teachers talked about how their own development as adults affects their ability to change. "I think that as you get older, you tend to see things a little bit different. You get away from tunnel vision and see more of the big picture."

> I don't feel as structured as I once was. I don't feel the need to be. I feel comfortable being flexible. Children need that...to know that if there's change and something happens, you don't panic over it....I use a more independent style now and we do things like learning centers that we didn't do before. I saw these things in other classes and they seemed to work better.

"My teaching has evolved from becoming a mother myself....I am more nurturing than when I started out." "I've learned that I need to continue growing and learning and it's got to be fun. You don't want to lose the humor in all of this change stuff."

Openness to change is also a matter of personal attitude. "What turns me on to change, even though I'm not as willing to change as other teachers, is I'm always curious to see if there's something I'm not doing that I should be doing for kids." "I don't want to sound egotistical but I'm always willing to try something new. But I get discouraged when it's not followed through." "I love change, and that's what happens in my room and I'm sure change is good for kids, or at least some kids." "Sometimes I say, 'I've gotten into a rut.' But then I'll do this and change that. That's how I basically teach, trying to find different stories or activities to do."

> I'm not saying that I'm a great teacher; I'm just saying that I am creative with some ideas. I'm going along and I'll stop and say, 'Kids, I've got a great idea.' My lesson plans go out the window...and the next day we are doing it.

"I think you have to change....You have to adapt to not only the children but the times."

Efficacy. Efficacy reflects the degree to which teachers feel they make a difference in the lives of students. Efficacious teachers continually challenge themselves to gain the skills needed to motivate students to do their best. They treasure the connections they develop with students, often choosing to serve as guides in learning rather than as experts.

A number of teachers feel they are effective teachers. "It's neat to see his successes....It's like magic. I work with him every day and you can see the wheels of learning turning for him."

> I found out that he likes to draw. So I got this card and told him that if he has all stars on it at the end of the day, he gets a free period to draw. He's been here three weeks now, he hasn't missed one day, and he's doing his work now for all the teachers. Tomorrow I'm taking him to the post office to paint and he's on cloud nine....Three weeks is a long time for him.

"I get frustrated with some of the content area still being taught...but I was lucky enough to become involved in special education where we break that cycle and teach a lot of effective stuff." "It's really exciting to see the continuity, how they carry over what we worked on last year and use it this year. It's rewarding to see those skills are actually there." "I feel good about myself when I see a kid accomplish something....I see him smile and I'm amazed that he can improve that quickly....A smile gives you all the reward you want. That's why I continue to

teach." "I think I'm a pretty good teacher. And I only say that because I've had an awful lot of kids come back and tell me, 'I got through this college course or I got this job or whatever because of something I picked up in your class.' You can't put a price tag on that."

Teachers said students are why they stay in teaching. "I'll have experiences during the day that are rewarding, even with just one student, somebody you weren't expecting to surprise you. Then you feel being here is worthwhile." "My kids get me here every day....it's exciting to see them accomplish something, see them improve in self-esteem, and let people know they're individuals."

> Without the kids, I wouldn't be here because I'm doing it for them. It's like doing your 'shtick' every day. You're like an entertainer...and at the end they really discover something. So you're constantly building experiences for them that will hopefully work out, and that's the fun and the challenge and the stress of it...trying to make everything come together.

"This is probably the busiest year I've ever had, but it's probably my happiest year teaching so far because now I'm doing what I've been wanting and training to do with children."

Several teachers discussed an internal motivation that drives their teaching. "This internal thing I've got, I could do all kinds of things and I do.... Just give me some time and I'll teach you how to make quiche, how to bake bread, how to do anything. I can't stop learning and doing."

I've seen that ever since I've been teaching. The new people teaching just like the people who have been here for thirty years. Only a few people are truly energized by doing something different. They want to learn and take risks. So, on a personal level, to keep their jobs interesting and challenging, they take it upon themselves to learn new skills and try them out. But you don't see that very often. It's not easy, it's not comfortable, and it's very time-consuming.

DISCUSSION

Jackson teachers describe the process of change as exhausting, often meaningless and uncertain. We can better understand why if we consider how five organizational and personal factors, which teachers say affect their receptivity to change, relate. Three themes stand out: the depth of change, the progressive nature of the change process, and the importance of voice. They lead to a model for understanding how we can increase teacher willingness to change.

The Depth of Change. Jackson teachers operate at the surface level of change. They are content with modifying traditional practices instead of incorporating new methods and knowledge at a deeper instructional level (Hopkins, 1989). They are more receptive to adjusting their existing and often comfortable teaching styles than to completely rethinking their professional beliefs, skills and commitment. They prefer "first-order" changes, which tinker with the current structures of schools, rather than "second-order" changes, which fundamentally transform

the rules, roles and relationships which define how schools operate (Cuban, 1990; Sergiovanni, 1989).

The preference of Jackson teachers for "first-order" change corresponds to their preoccupation with organizational factors affecting receptivity to change. The teachers say an isolating and uncertain school climate, limited resources including time, students with an increasing variety of learning and social needs, and lack of support particularly from administrators negatively affect their willingness to change. They say it is hard to find personal meaning in change when they are just trying to survive hectic and challenging school days. They say the "costs" of change outweigh the personal "benefits" of change.

Rosenholtz (1990) suggests, "If policy changes pose too great a burden, teachers may dissociate themselves from their work and receive social support from colleagues for divestiture" (p. 86). Many Jackson teachers are indeed dissociating themselves from teaching and efforts to change their schools. Twelve teachers (30 percent), for instance, are considering alternatives other than teaching in Jackson, similar to the 25 percent of teachers in Rosenholtz's study who have either contemplated leaving the profession or reported others doing so due to the difficulty with planned change. Many Jackson teachers are also choosing to make smaller changes in an arena in which they can effect change on their own terms and at their own pace - the individual classroom. Their approach reminds me of Waugh and Punch's (1987, p. 244) comment regarding "closed" climates which serve as "protective shells preventing outside influences from impinging on the inner

aspects of teaching and learning." Many Jackson teachers have created "closed" classrooms which protect their ability to have some say in how children are served in their schools.

The Progressive Nature of the Change Process. The experiences of Jackson teachers suggest the process of change is a progressive journey, moving from "first-order" to "second-order" change, from organizational concerns to personal meaning. This progression is similar to the work of several stage developmental theorists. Maslow (1954), for instance, describes a hierarchical model of human motivation: satisfaction of physiological needs leads to meeting safety, belonginess and love, esteem, and finally self-actualization needs. Herzberg & Mausner (1967) develop a similar model of hygiene and motivating factors. Hygiene factors, such as physiological, safety and belonging needs, serve to maintain individual performance. They provide an "essential base" for motivating factors, including esteem and self-actualization needs, which lead individuals to continually develop their abilities. Individuals choose to be satisfied with their current skills or to grow in new ways. Hopkins (1990) finds teachers who "go beyond competence" are more likely to change than those content to remain in their own "niches."

> In brief, our results implied that variance in curriculum utilization could be accounted for by the prevailing school climate and the nature of the individual teacher. We found that teachers operating at a higher psychological level [using Maslow's stages] and in a more open, democratic school climate used the greatest number of educational ideas (p.42).

Particularly relevant to the findings of this study is the model of Belenky, Clinchy, Goldberger & Tarule (1986) which uses the metaphor of voice to describe five progressive life stages in understanding the intellectual growth and development of women: silence, received knowledge, subjective knowledge, procedural knowledge, and constructed knowledge. As women develop confidence in their own voices, they become more open to and understanding of the needs of the world around them. They become "connected teachers" by using their voices to help students develop and find their own voices in learning.

Four of the forty Jackson teachers appear "connected" in their work with students. Though they discuss the organizational constraints affecting change in ways similar to those of their colleagues, they seem to "rise above" these constraints to focus instead on alternative structures of learning to benefit students. They find meaning and efficacy in the actualization of their students, gaining internal satisfaction when their students perform the best that they can. They focus on relationships, responsiveness, and interdependence in their own development as teachers and in the development of their students (Gilligan, 1982; Lyons, 1989). In doing so, the four teachers talk about their voices in change. They say they use their voices not only to construct stimulating environments which encourage students to find their own voices in learning but also to fight for school organizational changes to support these environments.

The Importance of Voice. Voice in change is the ability of teachers to initiate and decide change and to be heard as

respected members of the school community. It combines the concepts of authority, agency, and communion: authority describing the power of teachers to express their professional expertise, judgement, and commitment to young people by determining change; agency meaning that this power is actually heard and valued by others, for instance by principals, school board members, and state officials; and communion suggesting that the power to effect change needs to be cooperatively held by teachers speaking and working together for change (Bakan, 1966; Josselson, 1987). Teachers can develop

> their own authentic voices if they emphasize connection over separation, understanding and acceptance over assessment, and collaboration over debate; if they accord respect to and allow time for the knowledge that emerges from firsthand experience; if instead of imposing their own expectations and arbitrary requirements, they encourage students to evolve their own patterns of work based on the problems they are pursuing (Belenky, et al., 1986, p. 229).

Voice appears to be the critical bridge that allows teachers to move from a preoccupation with organizational constraints affecting change to a construction of personal meaning in change. It involves both a sense of external and internal meaning; for instance, when teachers gain the organizational authority to determine school decisions, and do so cooperatively, they come to believe in their personal agency to make those decisions. Vygotsky (1978) suggests that the shift from the external to the internal is in fact a significant aspect of human development. He believes that

dialogue - conversing, listening to others, and creating personal opinions and plans - supports this shift. It helps people practice and develop confidence in their own speech and in their own ways of thinking. It allows people to transform external words into internal meaning (Belenky, et al., 1986) and acknowledge to themselves that they have the power to make a difference in their schools (Watts & Castle, 1992, p. 685).

The majority of Jackson teachers say they experience little authority, agency and communion in their work. They use such words as "we're told what to do," "it was shoved down our throats," "I had no input," "it's a negative thing to give your opinion," and "we're isolated." They feel silenced by administrators, specifically told not to speak up and "to cause trouble." They say they would be more receptive to change, especially change that fundamentally transforms how their schools operate, if their voices were heard and reckoned with in dialogues about change. As one teacher indicates,

> To reach a professional and even an emotional level where you can try things in the classroom, you have to have support first....If that came first, and out of that arose a need to make changes, and people could express their interest or their discomfort and you wouldn't feel that you were such an oddball for doing so, maybe real change would bubble up from that kind of interaction among staff.

A model for increasing receptivity to change. Though the majority of Jackson teachers are preoccupied with organizational constraints, giving weight to the work of Maslow (1954), Herzberg & Mausner (1967) and Belenky, et al. (1986) regarding the hierarchical

and linear direction of change, the overall findings of this study suggest that the relationship between organizational and personal factors is more interactive. As Figure 1 suggests, the factor of voice appears to drive this interaction. The majority of Jackson teachers indicate that having voice would lead them to not only fight for changes in organizational conditions but also to find personal meaning and efficacy in change. They say that having the authority to make decisions would turn their concerns about organizational constraints into energy for doing something about them. They say that losing what little voice they do have in classroom decision-making would only exacerbate their preoccupation with organizational issues and further their dissociation from school change efforts.

Four Jackson teachers, however, are already focused on those personal factors which increase receptivity to change. They are using their voices to create challenging learning environments for all students and to work for organizational changes to support these environments. Their openness to "second-order" changes suggests that fundamental school change ultimately depends on teachers feeling "connected" to the process of change. Teachers can make connections with change, however, only when they have a voice to determine what change is needed and how change will happen. Without a voice in change, teachers will remain focused on smaller, "first-order" changes that involve less risk and commitment. Thus, we can increase teacher receptivity to change by increasing teachers' ability to address organizational and personal factors in change.

[Place Figure 1 here]

This model leads to specific recommendations for increasing teacher receptivity to change.

1. Teachers must have the authority to explore, experiment with, and determine change in their schools. This study confirms other research showing significant change will not occur in schools until teachers "buy into" and "own" the change. Change cannot be "done" to teachers; meaningful and long-lasting change takes place in partnership with teachers. Though awareness has increased regarding the need for teacher involvement in decision-making, in many schools it happens superficially or not at all.

2. Teachers must be listened to. Principals often say to teachers, "I want your opinion on this," but then they ignore what teachers recommend. Fundamental change will not occur in schools where teachers' voices are not respected, where teachers are told what to do instead of asked, "How can we do this together?"

3. Teachers must work collaboratively to determine change. A school is comprised of many individuals. Significant change requires agreement among all participants to alter school schedules, to adopt new instructional strategies, to transform school curricula. One teacher can make a difference in her classroom; many teachers, in partnership with students, parents and administrators, can change a school.

Underlying these three recommendations is the need for teachers to have regular blocks of time to meet and interact, and to develop and implement a set of clearly articulated goals that focus schools in addressing the learning needs of all students. Teacher voice in change does not happen over night; it evolves over time as teachers

come to believe in their collective ability to construct and implement meaningful school change.

CONCLUSION

Creating the conditions in which all teachers can become "connected" with their students should be the focus of school reform efforts. We know that the better teachers are at their work, the more rewarding they find teaching, and the more committed they are to continually becoming the best teachers they can be (Sykes, 1990). But we have to help them to embrace change.

This study describes factors which teachers say influence their receptivity to change. It indicates that when teachers are stuck on organizational constraints affecting change, and fail to move beyond them to find personal meaning and and professional efficacy in change, fundamental school change will fail to take hold. It suggests that teachers will embrace change, both organizational and personal, only when they gain a forceful voice in the change process itself. Teachers need the power to initiate and decide change, the affirmation that their voices are heard and respected by others, and the sense of community that results in working together for change.

Note:
The research reported in this article was supported in part by Grant No. H023F80027 from the U.S. Department of Education, Office of Special Education. Points of view or opinions stated in the article do not necessarily represent official agency positions.

Table 1
Characteristics of Sample

Characteristic	Number	Percent
Total	40	100.0
Sex		
Female	25	62.5
Male	15	37.5
Level		
Elementary (K-6)	19	47.5
Secondary (7-12)	21	52.5
Years Teaching		
1 to 5 years	7	17.5
6 to 10 years	2	5.0
11 to 15 years	17	42.5
16 and more years	14	35.0
Years of Age		
22 to 30 years	3	7.5
31 to 40 years	20	50.0
41 to 50 years	11	27.5
51 and more years	6	15.0
Education Level		
Bachelor's	17	42.5
Master's	23	57.5

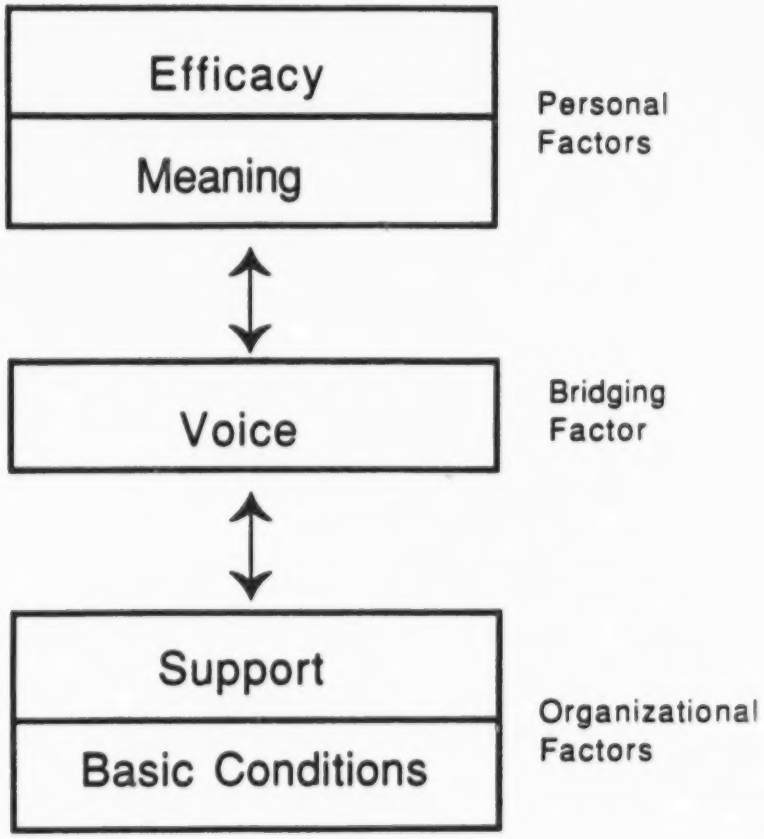

Figure 1. Factors affecting teacher receptivity to change.

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Appendix D

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Over the four years of this project, the following people were also members of the research team:

- Lynn Parrish
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- Elizabeth Nahl
- Jamie Ryan
- Kathleen Hurley
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